THE TIMES
Higher Education
SUPPLEMENT

Mature students forced to live in poverty–NUS

by Sue Reid

Mature students, particularly those with families, are being forced to live in poverty the National Union of Students claims.

The union, renewing its campaign for increased student grants, has sent a strongly-worded memorandum to the Department of Education and Science highlighting the plight of the mature students and their dependants.

It says: "Mature students with families, often running two homes and committed to a higher level of expenditure than the average student, cannot live on their present level of grant without extreme difficulty and without putting their families at risk."

It adds that many mature students and their families face difficulties because of anomalies in the grant system and through the Government's decision to link mature students' allowances with previous earnings.

The union is calling for the DES to pay mature students' allowances on the basis of age alone. It wants to see a substantial increase in the dependants' allowance paid to students with families.

Mr Charles Clarke, the NUS president, said this week that mature students and their families were suffering badly. "We have one example of a mature student who had to give up his course suffering from malnutrition. The grants system is heavily weighted against those people who missed out on further or higher education at 18."

The union claims that in almost every case the allowance for students' dependants is less than the normal child allowances paid by the Supplementary Benefits Commission. It adds that there is discrimination against unmarried student parents who receive no allowance for their children.

"We cannot stress how important it is that the new grant rates are announced in time for local authorities to dispatch cheques near the start of term. There is no alternative source of income for students and not all local authorities are prepared to make advance payments available."

Cuts are no worse at universities, Clarke says

Universities have suffered no more than other sectors from public spending cuts, Mr Charles Clarke, president of the National Union of Students, told the NUS universities conference at Durham University this week.

In an attack on the November statement from the Committee of Vice-Chancellors and Principals on "Universities in a period of economic crisis", Mr Clarke admitted that cuts in the university sector had been deep.

"But so have they in further education, where courses have been closed and grant cheques stopped", he said. "So have they in teacher training, adult and part-time education and in the schools."

The CVCP's argument that universities were a special case must be rejected, he said. "University student unions have a grave responsibility to ensure that they are with the rest of the student movement in this fight and that they do not strengthen the sectionalism which the vice-chancellors appear to want to encourage."

He criticized the CVCP for willingly accepting cuts which meant a reduction in provision per student, a reduction in staff and in standards of university education. The NUS did not accept the cuts, he said.

The CVCP had singled out academic staff as particular sufferers, he went on. But the living standards of all other staff and also of students had dropped. One section of the university should not be defended against another.

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Government to review computer scene

by John Ross

A major Government review of computer provision in higher education will be undertaken this year, Lord Crowther-Hunt, Minister for Higher Education, revealed this week.

Lord Crowther-Hunt, opening the new £400,000 ICL 1904S computer at North East London Polytechnic, said that the increasing expense of computing would make sharing between different kinds of institution more important. The review would seek ways of extending cooperation across the binary line.

Under the present system, he said it would be difficult to promote a national plan for computer provision in higher education. The emphasis of the work in polytechnics was on teaching and in the universities on research, although there was a degree of overlap and collaboration.

The Computer Board (which is responsible for the provision of computers in universities) is currently planning the development of network schemes for coordinating computing at universities and regional centres.

Referring to this, the minister said: "My hope is that polytechnics will contribute to and obtain services from the computing facilities becoming available, hence extending cooperation across the binary line in future."

He also stressed the role polytechnics could play in schools, further education, and industry: "As institutions maintained or assisted by L.e.a.s, the polytechnics are particularly well placed to collaborate both with other colleges of further education and with the schools in providing preparatory courses in computing studies.

"They are also well placed through contacts at student, staff and governing body levels to cooperate with local industry."

Dr Henry Chilver, chairman of the Computer Board, said there was a strong case for making computer facilities more widely available.

The board had been considering the long-term development of computing in higher education and would be reporting to the minister early in the new year, he added.

Ease records access for scholars, new group urges

Scholars should have better access to public records, the newly-formed Social History society claimed this week.

At its inaugural conference at Lancaster University, members of the society claimed that the study of social history was severely impeded by arbitrary and unnecessary time limits placed on the release of certain records.

The society called for the civil and ecclesiastical registers of births, marriages and deaths to be made available without charge to bona fide researchers (at present £2.25 per certificate); for the census enumerators' returns and Home Office records to be released after 50 years rather than the present 100 years; and for all public bodies to take note of the requirements of social historians before transferring or destroying their records.

The resolutions are to be sent to the Home Secretary, the Chancellor of the Exchequer and the Secretary of State for Education.

Professor Harold Perkin, of history department at Lanc and chairman of the society, s "When most state secrets are to inspection after a compara short time it is monstrous information vital to research s be kept locked up for more 100 years.

"Researchers are being d access to records on the gro grounds of privacy and lac specific statutory authority. consider there would be no threat to the individual's rig if all such records were op bona fide researchers 50 years their creation."

The three-day conference attended by 150 social histo from British, France and Ger Professor Asa Briggs, vice-chan of Sussex University and e elect of Worcester College, Ox is president of the society and Michael Rose of the history de ment at Manchester Univers secretary.

Bradford graduates boost economy—PM

Bradford University graduates were specially equipped for the task of transforming the British economy from decline to one of high output and high earnings based on full employment, the Prime Minister, Mr Wilson, the university's chancellor told a degree ceremony recently.

He said: "We are proud in Bradford of what is being achieved in this university; courses in engineering which lay an increasing emphasis on management education—courses in management which are concerned with the behavioural study of industrial organizations and with production management. All are relevant to the task which now faces us—the regeneration of British industry."

Mr Wilson emphasized the role of those trained in technology in Britain's industrial recovery. Productive capacity in industry depended on the skills of managers, scientists and technologists and on investment in those skills.

Though times were difficult for universities Bradford had not slackened its efforts to develop its courses

Ruskin doubles its numbers

Student numbers at Ruskin Col Oxford have almost doubled in past 25 years and full-time s have increased more than three the college's annual report for 1 75 notes.

Student numbers at the begin of the 1974/75 session reached and full-time staff 18. Applic have remained constant at for each place.

The number of trade union larships and bursaries has greatly increased, with 57 last year and ten scholarships the college trade union appeals Several other bodies also supp students, including the An Bevan Memorial Trust, the Sc Council and the United Nation

The average age of students ing the college last year was report says. Occupations ded able seaman, bricklayer, car ter, electrician, hordsman, p porter, post office engineer, r taxi driver, salesman and secret

Another development was the college now provided a greater range of options, wit choice of five diplomas.

Overseas

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Knowledge of French essential.
Salary: £2,740-£4,264 p.a.
Benefits: Overseas allowances. Two-year contract. 75 CU 99

Lecturer in English (Algeria)
Institut de Technologie de l'Education in Constantine
Graduates with TEFL qualification and experience. Knowledge of French essential.
Salary: £2,740-£4,264 p.a.
Benefits: Overseas allowances. Two-year contract. 75 CO 129

Return fares are paid. Local contracts are guaranteed by the British Council.

Please write, briefly stating qualifications and length of appropriate experience, quoting relevant reference number for further details and an application form to The British Council (Appoint. Overseas), 65 Davies Street, London W1Y 2AA.

Polys lose in DES plan

from page 1

"We thought that one of the original proposals of schome was to integrate teacher training with the rest the public sector, particularly the polytechnics. These ures do not seem to bear this out."

He also said that 750 students should be the critical for a teacher training department, a figure not reach in any of the averages quoted.

Dr Harry Judge, director of the Department of Educational Studies, Oxford University, and one of the members of the James Committee, condemned the proposals for leaving a weak third-sector of 72 institutions, unlike the origin James proposals which wanted it strengthened.

There were "altogether too many small, weak institutions he warned, and said it was difficult to believe that a strong teacher education sector could be created.

Mr James Porter, principal of Bulmershe College Higher Education, also a member of the James Committee, however, welcomed the plans. He said that the DES should allow different styles of teacher education develop between the polytechnics and the colleges.

"Colleges of higher education and colleges of educa will still be able to provide a strong institutional base teacher training courses. Colleges of higher education also have a strong interest in professional training, was the training of community workers alongside teachers, said.

Mr Porter said that the polytechnic involvement would still be substantially increased from a mere five institutions to 25 and their 14,000 students would still give them a stake in teacher training. He thought their wide range departments would allow a different type of inter-disciplinary teacher training programme to be pursued while college of higher education could provide a strong teacher training base.

NEXT WEEK

Laurie Sapper on salaries
Economic books: four pages of reviews
New collection of Mary Douglas essays
Overseas students: a special report
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Moses Finley on the first Olympic Games

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Higher Education
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Go to private sector, graduates told, as 10% job fall predicted

by Sue Reid

A dramatic drop in demand for graduates, especially in the public sector, has been forecast by four leading graduate placement organizations. They are predicting that demand for graduates in 1976 will be 10 per cent down on last year while the number of graduates seeking employment in Britain will rise by about 5 per cent.

This bleak news has come from the Standing Conference of Employers of Graduates, the Standing Conference of University and Polytechnic Appointments Services, the Central Services Unit for Careers Services and the Computer Assisted Placement Service.

The four organizations said this week that the fall in graduate demand would be concentrated in the public sector, and particularly local government. However, they expected demand for graduates in the private sector to remain steady, helping to offset the lack of vacancies elsewhere.

Mr Brian Putt, director of CSU, told *The THES* this week that the "traditional" graduate employers in the public sector were likely to cut back on recruitment dramatically in 1976. "We are anticipating a very severe cut back in the Civil Service science sectors. In some areas local authorities may reduce graduate recruitment by about 30 per cent."

He added that the Post Office, which normally offers between 800 and 900 jobs to graduates each year, was expected to recruit no more than 50 this year.

The private sector, and particularly manufacturing industry, would be offering a similar number of jobs to graduates as in 1975, said Mr Putt. In previous years there had been a shortfall of graduates coming forward to fill vacancies in this sector but they were likely to turn to private industry in 1976.

The Civil Service, the largest single employer in Britain, is expecting to take on between 20 and 30 per cent fewer graduates this year. A spokesman said this week that 50 per cent less statisticians and economists would be offered jobs and there would also be a 15 per cent cut back in central administration vacancies.

The Civil Service employed more than 650 graduates as scientists in 1975 but is expecting to take on only 500 this year.

Mr Donald Cook, chairman of the Standing Conference of Employers of Graduates, said he hoped this year's graduates would consider jobs in the private sector, and particularly in industry. However, he added that one large firm in the public sector of manufacturing industry was expected to recruit only 150 graduates this year compared with about 600 previously.

Demand from large chartered accountancy firms is expected to be even higher than last year. About 10 per cent of all 1976 graduates will find jobs in this field.

Demand from the 12 largest electrical engineering firms is expected to be exceptionally high, exceeding in the number of places offered the total number of electrical engineering graduates.

The four organizations estimate that actual graduate output will be up to four per cent higher this year than in 1975. There will be at least 65,000 first degree graduates and about 16,000 at higher degree level.

Unemployment among last year's graduates is somewhat higher than in 1974; five per cent compared to 3.4, for those whose destinations are known six months after graduating.

The starting salary for 1976 graduates is expected to be about £2,300.

After taking into account those going on to do vocational training and research a total of 35,000 graduates will be available for employment later this year.

Aim students at industry to save nation Mulley urges

by David Walker

A revolution in the attitude of students and teachers towards industry and commerce was needed to save Britain from economic disaster, Mr Mulley, Secretary for Education told the North of England Education Conference in Lancaster last week. It was vital to concentrate talent on the "brutal necessity" of earning the nation's living, he said.

"We can make a clear move in this direction by endeavouring to change the attitudes of our ablest students so that they not only contemplate specialization in science and mathematics—the relevant curriculum decisions are often taken at 13 or 14 or before—but that they should prepare for the challenge of a career in industry after university or polytechnic.

"There is no difficulty in drawing young people into the professions and the public service. But we must dispel a deeper respect for careers in wealth-generating industries and commerce upon which our economic future depends."

In his address to the conference, organized around the theme of getting value for money in the educational service, Mr Mulley diagnosed two major imbalances in education.

One was the pulling power of different careers. The other was the great difference in educational opportunity between social classes.

He criticized regional disparities, too, saying that too many employers in the North of England encouraged young people to go into industry at the earliest opportunity rather than equip themselves with technical, professional or managerial skills.

"Differences in opportunity and achievements are still too great between classes, between regions and between sexes," he said. "To take the first, it is good that the number of working-class children going on to higher education has risen—but wholly unsatisfactory that, in proportion to their numbers, middle-class children get five times as many university places."

The main part of his speech was full of praise for the achievements of the past 40 years. He contrasted standards in the 1930s with those existing nowadays and found great improvement. Public spending on education had risen dramatically and the Labour Government's establishment of comprehensive secondary schools had brought the ideal of education for all nearer.

Mr Mulley concluded from what he called a "catalogue of achievements" that education was better placed than it had ever been to withstand marking time during a time of unavoidable restraint on public spending.

"If local authorities use the resources available to them in the way foreshadowed in the recent Department of Education circular, spending on education will rise by over 2 per cent in real terms between this year and next."

Mr Mulley went on to dismiss extravagant criticism of student unrest at institutions like the Polytechnic of North London or Lancaster University. Instead, he declared his faith in the maturity of young people and their willingness to hear the contrary side of any argument.

● University teachers did not really have a grievance over the size of their pay award in 1975, Mr Mulley said.

There was no way the university teachers could have been exempted from the Government's incomes policy and he urged them to give other, less well educated sections of the community a lead in restraining their claims at a time of grave crisis.

Sir William Pile, page 2
Eric Robinson, page 3
Leader, page 14

KING FRED: The choice is yours, child—but pick No 3 and you'll get the royal coffers out of the red...

1,751 vacant places in SE polys, colleges

by David Hencke

Polytechnics and colleges in London and the South East are running nearly ten per cent below capacity for first year admissions to full-time and sandwich degree courses and Higher National Diplomas in spite of higher recruitment last October.

Figures supplied to the London and Home Counties Regional Advisory Council for Technological Education, distributed to local authorities, show there were 1,751 empty places out of a total of 19,525 which could be filled "if suitable applicants had been forthcoming without adding to the staff or accommodation required".

Comparative figures for universities, which are not included in the report, suggest that at least two in the region, Sussex and City, also had empty places for full-time degree courses in October.

Two University of London colleges, King's and Queen Elizabeth, say they have no empty places in science and technology and have kept to their targets established in the quinquennial review.

City and Sussex universities both admit to having approximately 100 vacant places in full-time courses in mathematics, applied science and molecular science. Sussex University had the capacity to admit 300 students although this would have exceeded targets by more than 200.

One of the weakest recruiters to degree courses among polytechnics is Thames, which according to the report has had seven courses over the past three years which failed to recruit 24 students, the minimum according to the Pilkington standards of course admissions.

Among the best recruiting polytechnics were City of London and Central London. Middlesex Polytechnic appeared toughest in dropping weak courses which failed to recruit.

The number of empty places in polytechnics and colleges has improved considerably since 1974

continued on page 3

Master of Balliol takes to the air

Dr Christopher Hill, seventeenth-century historian and master of Balliol College, Oxford, has been appointed visiting professor at the Open University for two years from 1978. He will be joint chairman of a team that will produce a course on revolutions in seventeenth-century England.

Dr Hill, whose appointment coincides with his retirement from Balliol, said this week that he was very much looking forward to his new post. He already has connexions with the OU through serving on its academic advisory committee.

Dr Hill has been master of Balliol College since 1965. From 1938 to 1965 he was a Balliol fellow and tutor. From 1934 to 1938 he was a fellow of All Souls College, Oxford.

Professor Ralph Smith, acting vice-chancellor at the Open University, said this week: "We are very honoured to have one of Britain's foremost historians join us and particularly gratified that through the the medium of the Open University's teaching system his scholarship will be brought into the homes of thousands of students."

New THES record

The THES sold on average 20,186 copies each week over the period July/December 1975, according to the latest audited figures. It is the first time circulation has topped 20,000 over a six-month period, and is an increase of over 2,000 on the same period last year.

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'Prefer the home-based student' plea rejected

by Sue Reid

Bristol University has overwhelmingly rejected an MP's plea for home based students to be given preference over other university applicants in an effort to alleviate the critical housing problem facing Bristol.

Mr Michael Cocks, Labour MP for Bristol South, called on the university to reduce student competition with the homeless when he spoke at a recent meeting of the university court.

He urged the university to take urgent action to increase the number of students living at home as a contribution to the Bristol housing problem. At present students were at an advantage because student tenants each contributing to one this could compete successfully against young people with families.

Mr Cocks alleged that the university had a responsibility because in order to achieve its building programme *it had destroyed* more than 200 houses. It had, he added, also urged students to ensure housing remained in their hands.

The arguments put forward by Mr Cocks were criticized by Sir Alec Merrison, vice-chancellor of Bristol University. He said qualifications for entry to the university were based on merit and academic suitability. To go away from this criteria would, he claimed, lead to the dangerous path of patronage.

The university, added Sir Alec, did not slavishly follow A-level results. Some candidates were admitted with qualifications irrelevant to the course they followed or with no formal qualifications at all.

But there was no doubt that young people in the Bristol area, as elsewhere, wanted to get away from home at the age of 18. In this, he said, students were encouraged by their schools and possibly by their parents.

Sir Alec said although the university had been growing over the past few years the students' demand for private housing had been decreasing simply because the university had built and continued to build its own residences.

It was quite clear that if the university were to make any contribution to Bristol's housing problem it would be in this positive way and not in the negative way of encouraging students to stay at home.

Sir Alec said if the university admitted a home based student there *would be no way of compelling him* to continue living at home. Of the 7,000 students at the university from the County of Avon only one quarter were living at their parents' home.

Mr Cocks proposal was rejected by a large majority and he then withdrew a second suggestion of a pilot scheme for housing homeless families in student residences during the vacation.

Clarke attacks 'sectional' CVCP over who cuts hurt

Mr Charles Clarke, president of the National Union of Students, attacked the Committee of Vice-Chancellors and Principals at a conference last week for picking out the academic staff in universities as particular sufferers from the Government's £6 pay limit.

Speaking at the NUS university policy conference in Durham, Mr Clarke said the living standards of all other university staff and students had gone down, and the CVCP should not just defend one section of the community at the expense of others.

He asked delegates to commit themselves to fighting all cuts in education. "I believe that university students will fight the education policy of this Right-wing Labour Government and will dissociate themselves from the sectional defence which the vice-chancellors' committee has raised."

In a spirited address Jimmy Milne, general secretary of the Scottish TUC, backed the fight against spending cuts. He said the burden of cutbacks in the public sector fell on the education and health services, the things the public regard as part of their high standard of living.

"I think we should all be looking at ways and means of convincing Government that this policy, brought out at a time to help solve economic difficulties, is a policy which will have a long-term effect on our ability to survive as a nation."

The present economic policy would have an immediate impact on the country's means of producing the kind of labour and skills to man industry and could result in financial collapse, said Mr Milne.

"Our objective must be to improve the quality of life in this country and we must seek to change the Government's policy on education. The TUC and the NUS must combine forces to make the maximum impact on the Government in education."

A call for students to intervene in the Northern Ireland situation was made by civil rights leader Margaret Henderson. She urged students to exert pressure on the Government to extend democracy in Northern Ireland.

Wardens fear for teacher centres' future

by David Hencke

Plans to concentrate in-service teacher training in colleges of higher education and polytechnics could damage courses provided in local authority centres, an association of wardens of teacher centres warned this week.

Mr Harry Kahn, secretary of Wardens in the South-East, said he was concerned lest unsuitable lecturers, made redundant from initial training courses, be given in-service education responsibilities to keep them employed.

"We feel it vital to the interests of the teaching profession that the philosophy pioneered by teachers' centres—recognizing the teacher as a professional to be involved in decision making and provision as well as the participation in his own education—must be enshrined in any system."

Mr Kahn explained that there was a considerable difference between this philosophy and one in which someone in a college or university "knew what was good for teachers".

The *association has already made* representations to the Department of Education and Science emphasizing the role of teacher centres in any national programme.

Under a scheme proposed in the White Paper *Education: A Framework for Expansion* colleges are to allocate 20 per cent of their reduced work to in-service training.

Discussions on in-service training are continuing between education unions and the Government. A team of DES inspectors is also visiting a number of colleges.

Association of comparative literature formed

A British Association of Comparative Literature is to be formed following a recent conference at the University of East Anglia.

This marks an important step in the recognition of comparative literature as a discipline in its own right. Britain is well behind its European counterparts in the subject which is offered at only about a dozen universities.

At the conference, organized by East Anglia's School of Comparative Literature, discussion centred on the new discipline's teaching problems. It considered the merits of broad general literary study, often using translation as opposed to close study of authors in two languages. It also asked if the subject could be more adequately studied at postgraduate than undergraduate level.

Participants also touched on more specific issues such as the role and function of translation, the inadequacy of British critical terminology and the place of semiotics and structuralism in comparative literature.

Two papers in particular developed the debate on critical theory. Professor René Wellek of Yale University spoke on "Criticism and Evaluation" and Professor André Lefevere of the University of Antwerp spoke on "Literary Translation, Literary Theory, Comparative Literature".

Participants decided to form a British association which may become affiliated to the International Comparative Literature Association. A follow-up conference is planned for 1977.

'Unfair' pay ruling

The National and Local Government Officers' Association claims that universities are refusing to allow university clerical and secretarial staff the right of individual appeal against unfair pay gradings. The union says 80 individual appeals are waiting to be heard in connection with new pay scales introduced in the universities last year.

£5,000 to study decay of old masters

Professor Gerald Scott of the University of Aston, has been awarded £5,000 by the Department of the Environment to make a study of the deterioration of old masters. Professor Scott, a chemist, was asked to do the research by the National Gallery.

NUS launches newspaper

The National Union of Students is launching a new newspaper on February 16 called *National Student*.

It is the fourth attempt by the NUS to produce a national student publication. It differs from its predecessors in that it will be distributed free among the 500,000 NUS members and will be a newspaper rather than a magazine.

Mr Francis Beckett, NUS press officer, who will edit it, said: "It's a totally new conception in communication from NUS to its membership. It will attempt to provide students with the news they want and need."

The newspaper was not going to be a propaganda tool of any political group, he said. "Its editorial line will follow the policy of the union."

National Student will be issued once a term, as an eight-page tabloid. It will be financed initially from a sum of £1,000, earmarked from the NUS budget, but is hoped eventually to finance itself from advertisements.

Stout defence of libraries

Any drastic cuts in library services would mean a serious limitation of essential information, according to a statement made recently by the Library Association council.

The right to read and to have access to information were fundamental to democracy and essential to a well-informed community, said the statement.

The association was concerned that many authorities in both the public and private sectors were planning excessive cuts in finance for library and information services.

Restrictions would pose a threat to freedom of reading and information equivalent to censorship. The country's vast investment in education would lose much of its effectiveness if services at all levels were curtailed.

"In times of economic difficulty public libraries assume a role of increased importance for many people. Those being retrained and the unemployed make heavy demands on libraries.

Widen engineering training call after Flixborough inquiry

A recommendation by the court of inquiry into the Flixborough disaster has prompted the Health and Safety Executive to call for a broadening of engineering education.

At Flixborough, the key post of works engineer was vacant and according to the court of inquiry "none of the senior personnel of the company, who were chemical engineers, was capable of recognizing the existence of what is in essence a simple engineering problem".

Accordingly, it recommended that all engineers should learn at least the elements of branches of engineering other than their own in their academic and practical training.

A call for more training to be incorporated with engineering degree courses, made last year by Dr T. T. Booth, lecturer in the department of science and history at Aston University.

Dr Booth, addressing a meeting of engineering students and lecturers in Leeds, criticized the existing engineering degree courses which he considered were becoming more theoretical and less practical. Many graduates were leaving university with a degree but little practical knowledge.

Dr Booth, chairman of the institute of engineering designers, said engineering graduates should be trained to be more flexible in their approach to engineering problems. They should also be encouraged to develop a sense of responsibility and be interested in the social aspects of engineering.

Red idealism and reality debated by study group

The effect of governing post-revolutionary Russia on the revolutionaries' earlier idealism was the main theme of the annual conference of the Study Group on the Russian Revolution held recently at Keele University.

Dr Lesley Milne from Hull University discussed in a paper on "The image of the White Guard in the works of Tvorayeva, Bulgakov, Shulgin, and Alexei Tolstoi," an early prediction of Stalinism by the ex-Duma deputy, V. V. Shulgin: "Before long a new autocracy will arise, headed by someone less unprincipled than Marxist theory."

The theories developed by two other speakers, Mr Peter Cattell, of Granville and Lunn College, Cambridge, and Dr David Jones editor of the *Modern Encyclopaedia of Russian and Soviet Military History* in a paper on the rise and fall of the Bolshevik military programme 1917 to 1920.

Other speakers were Professor Carter Elwood from Carleton University, Canada, and Mrs Maureen Perrie of Birmingham University.

The Study Group's third conference will be held at Leeds University on January 6th, 1977. Applications to join the group should be sent to the Secretary, Dr David Longley, King's College, Aberdeen University, Aberdeen, Scotland AB9 1AS.

'School numbers will drop 2m'

Numbers of future trainee teachers could be drastically altered by reductions in the school population, Sir William Pile, permanent secretary at the Department of Education, warned at the North of England Education Conference last week.

He predicted that by the end of the century up to two million fewer children would be in the schools and said these demographic changes were far more important in the long run than current reductions in public spending in their effects on teacher training.

Sir Toby Weaver, former deputy secretary at the DES, dismissed suggestions that the Government might be actively planning to increase the size of school classes. For many years there had been no government, Labour or Conservative, that had not supported the reduction of class size, he said.

Sir Toby went on to defend the principle of dividing higher education between the universities and the further education sector. He described the basis of the polytechnics as improving the capacity of their students to take action. By contrast the orientation of the universities was the pursuit of truth for its own sake.

"There is a general difference in emphasis based on this distinction. I would hope that of the millions of people in education busy searching for new knowledge and wisdom, most are not going to be professional pursuers of truth."

Sir Toby also dismissed allegations that university teachers had been penalized in their salary negotiations by wicked civil servants. As a lecturer at universities in the years since he retired from the Civil Service he had not noticed any great signs of personal hardship among university teachers, he said.

But he added that to accuse civil servants of deliberately plotting against the interests of university teachers betrayed a "monstrous misunderstanding" of how government worked. Civil servants only carried out policies decided by their political masters.

TV teaching team for Saudis

The Open University is sending a team of five consultants to Saudi Arabia this month to advise the King Abdul Aziz University on distance learning techniques.

The university, which has several thousand full-time students, is looking at ways of introducing distance learning for part-time students in the Middle East where nearly one quarter of the country's population is literate.

The OU team will make a preliminary assessment of the educational needs of the country and explain how best the OU could help.

The university is more interested in the techniques of distance learning than the OU course materials. Teaching will be in Arabic using local television, and the emphasis is expected to be on science, mathematics and technology.

The team is from the OU consultancy unit which was set up a year ago to advise governments and institutions in areas where the OU has had experience.

Leicester merger begins likely final round of settling college futures

by David Hencke

The Government has approved the merger of the City of Leicester College of Education and Leicester Polytechnic in the first of what is expected to be a final round of decisions for about 40 institutions whose future is still not determined.

The Leicester decision, made in a letter to the local authority last month, ends two and a half years of speculation about the college's future. The new polytechnic education department will have 500 teacher training places, including art education and in-service and induction, and the merger should take place on September 1.

Dr Bernard Fisher, principal of the college, said that although the new institution would have one director and one academic board the ethos of the education department and its staff would be safeguarded.

Decisions are expected very shortly on the future of many Anglican colleges, the last major sector of teacher education without final Government approval for its plans.

Under proposals submitted from the Church of England Hockerill College, Bishop's Stortford, St Peter's College, Saltley, and the College of Sarum St Michael, Salisbury, would be closed. The College of All Saints, Tottenham, would be given a two-year reprieve and Culham College of Education, Abingdon, provisionally listed by the Department of Education and Science for closure, would be reprieved.

Negotiations start next month on an academic merger between the Anglican Bishop Otter College, Chichester, and Bognor Regis College of Education, in line with proposals already privately suggested by the Department of Education and Science. The colleges have been given a shared teacher training total for 1981 making some academic cooperation inevitable.

The Government has still to solve difficulties surrounding some university-college mergers, notably the proposed merger of St Mary's College, Bangor and Bangor Normal College with the University College of North Wales.

Here the small number of teacher training places offered in the merger and local authority opposition make a solution difficult. Negotiations are still continuing over the final details of mergers between St Luke's College, Exeter and Exeter University and Coventry College of Education and Warwick University.

Negotiations have also started between Homerton College, Cambridge and Cambridge University to strengthen academic links between the two. One proposal is that a new subject-based teacher training degree will be offered to Homerton students, allowing them to spend two years as a Cambridge University undergraduate.

A number of multi-site mergers have still to be solved, particularly the future of Dudley College of Education, the Gloucestershire federation scheme and a merger scheme in Lincoln.

The Department of Education and Science has strongly recommended the merger of Dudley College of Education with Wolverhampton Polytechnic, which will allow the polytechnic to combine with three teacher training institutions. The only alternative to a merger is the transfer of all Dudley College's teacher training places to West Midlands College of Education, Walsall.

Negotiations are continuing on the federation of three colleges of education in Gloucestershire with two colleges of technology and a college of art.

Hertfordshire's education committee is expected to recommend next week the closure of either Ball's Park College, Hertford, or Wall Hall College, Watford, to meet plans for a single-site teacher training college in the county.

The Department has also to decide whether teacher training can continue at Putteridge Bury College of Education when it becomes part of the new Luton College of Higher Education in September.

Final teacher training places for 1981 of 650 for Christ's College, Canterbury, and 600 for Rolle College, Exmouth, have been given by the Government. King Alfred's College, Winchester, is to be reduced from 900 to 775 teacher training places now that a merger with the College of Sarum St Michael, Salisbury, is not possible.

Some students still waiting for grant cheques—NUS

by Sue Reid

Some grant cheques may still not have reached the pockets of students more than three months after the start of the academic year, the National Union of Students claimed this week.

The union, which has made a strong protest to the Department of Education and Science over the situation, says a substantial number of cheques had not been received by students at Christmas and it is possible that some are still without money.

Problems over the grant cheques began with the DES grant increase announcement last May. The NUS claims it came too late for local education authorities to pay out the money by October and consequently students in some areas were not paid by the end of last term.

A spokesmon for the NUS said this week that some local authorities had not been able to deal with the administrative work involved in the time. A number of local authorities had made special payments to students but others had not.

"We do not want to blame the local authorities because we feel the responsibility lies with the DES which should have announced the increase in grants earlier."

But the DES this week refused to accept the blame. A spokesman said that local authorities had been told in time to get the grants out by October. They had been informed of the new grant rates in full during May and this allowed ample time to deal with the administrative work. It had been impossible to inform local authorities earlier.

However, Mr Charles Clarke, president of the union, has made a special appeal to the DES over this year's grant situation. He wants to see the grant rate reviewed earlier so local authorities have time to do the necessary paper work before October.

● Only a handful of universities have received a share of the special student hardship fund announced last year by the University Grants Committee.

The fund, believed to total £175,000, was set up to give urgent financial help to students facing hardship as a result of the £70 increase in tuition fees.

A spokesman for the UGC said this week that a few universities, including London, had received the money but others were still negotiating with the committee.

Most universities have handed over the money to the students involved and are now waiting to be recouped by the UGC.

Empty places in SE colleges

from page 1

when national figures showed that more than 100 out of 700 degree courses recruited less than 20 students. In London and the South East alone, vacant degree places have fallen from 1,562 to 1,083 and Higher National Diplomas from 760 to 668.

Recruitment to full-time electrical and electronic engineering degrees has doubled and sandwich course recruitment risen by 26 per cent.

Law admissions are up 73 per cent and there have been smaller improvements in computer science and civil engineering. Recruitment to science, mathematics and arts remain static. One disturbing trend is the emergence of 40 unfilled places on social science degrees, previously a growth area.

A total of 43 new degree courses were started by polytechnics and colleges last year, 20 of them new Bachelor of Education degrees started by colleges of education and polytechnic departments of education.

Later "in-service" degrees were given RAC approval to start and are awaiting approval by validation boards. Among art colleges fine art remained static while recruitment to courses in fashions and textiles were particularly weak.

New colleges of higher education, many receiving late approval for new diversified liberal arts degrees, recruited very badly. Roehampton Institute of Higher Education attracted the largest number of students, 68, to a new University of London combined studies degree. Stockwell College of Education, with nine new diversified degree courses, attracted only 20 students to two of them. Eastbourne College of Education, attracted only 13 students to two University of Sussex degrees.

Among the new Bachelor of Education degree courses three colleges, Faversham, Sittingbourne and Rachel McMillan, failed to attract more than 15 students while Roehampton attracted 236, Goldsmiths' 153 and Avery Hill, 122.

A fuller analysis of the report will *appear in The THES later this* month.

Professor W. H. Cockcroft

Cockcroft appointed Ulster v-c

The New University of Ulster has appointed Professor W. H. Cockcroft, professor of pure mathematics at Hull University, as its next vice-chancellor from October, 1976. Professor Cockcroft succeeds Dr Alan Burges, the university's first vice-chancellor, who is retiring after eight years in the post.

Professor Cockcroft said this week that his first task as vice-chancellor would be to "get stuck in and find out what the place is doing". He was looking forward to the appointment, but would not comment on the particular problems attached to its location.

He admitted that recruitment had been a problem and intended to try to stimulate interest in schools by inviting them to the university and holding education conferences, as other universities were doing.

Professor Cockcroft, aged 52, was educated at Keighley Grammar School and Balliol College, Oxford. He held university appointments at the universities of Aberdeen, Southampton and Chicago before moving to Hull in 1961. He is a member of the University Grants Committee and chairman of both its education and mathematics subcommittees. He is also a member of the Computer Board for Universities and Research Councils.

NEXT WEEK

Hugh Thomas: Spanish painting
Bernard Crick on The Ik
SSRC industrial relations unit
Report on student teachers
Nuffield educational research
Boris Ford on excellence

Freeze may force university to turn away research grants

The freeze on university-funded research posts at Birmingham University could have a devastating effect, Dr Brockie Hunter, the vice-chancellor warns in his annual report for 1974-75.

The number of posts frozen during 1974-75 was 54 out of 143. "The severity of this loss in a university which rates research highly and has a strong tradition in it is a clear indication that the need to deal with teaching emergencies during a financial squeeze leads almost inevitably to undue pressure on research."

The university had received extensive financial support for many years for its research programmes from bodies other than the UGC, he added. In the last year £2.89m was spent on 755 research grants and contracts, of which 334 (£1.57m) was from research councils.

To maintain research programmes in a time of financial stringency was a severe problem and the university was doubtful whether it could accept new research grants.

"With severe restrictions on income and with increasing inflationary *commitments, the situation* could arise where a restriction has to be made on the number of grants which can be taken up, and of course this would mean that the very people who have the ability and energy to attract research support would be penalized.

"It would be a situation where success in national and international competition was itself creating problems, and we should have the ironic position that the more successful a university was in winning grants, the poorer it became, while a less distinguished university would be better able to weather the economic storm", he says.

Birmingham could be one of the main sufferers because it receives 8 per cent of all research grants offered by research councils, even though it has only 2.9 per cent of all university students.

On the university's budget in general, Dr Hunter notes that the allocation of funds to departments in 1974-75 was down by 14 per cent in real terms compared with the previous year. Some 70 academic posts out of 1,068 were frozen.

For 1975-76 about £300,000 is to be saved in non-academic areas and £100,000 in academic areas. "This kind of thing cannot go on indefinitely without damaging the institution", he comments.

The university's aim for 1975-76 is to break even, the treasurer noted in his report on the accounts for 1974-75. The deficit for last year was £203,000 but this can now be set against the extra UGC grant of £348,000.

Income in 1974/75 increased by 16 per cent compared with an increase of 19 per cent in expenditure, *he notes. There was a marked* increase in income from research grants and contracts.

Although there has been little change in the overall total of net unspent funds, their real value has fallen. "For the first time in the careers of those now responsible the university has suffered a reduction in the real resources available to it. Much has been done to ensure that the next few difficult years can be met without grave dislocation, but the need to persevere with all reasonable economies cannot be stressed too often", he says.

Bath report gives standards warning

Standards of university education in Britain will fall unless financial circumstances improve, Dr Leonard Rotherham, vice-chancellor of Bath University, has warned in his annual report. And that applied even if there were no increase in student numbers.

"This is in spite of the fact that British university education is a low-cost system compared with most others of comparable standard", he said.

The most serious effect of economies and uncertainty about the quinquennial settlement is the slowing of academic, auxiliary and support staff recruitment.

"Bath's original quinquennial estimates had assumed that, over the five years, the staff/student ratio would improve progressively by about 10 per cent, but even if this were possible the final position would not be close to the national average.

"Bearing in mind that some of the university's schools are relatively well provided with staff, it follows that those less well-off were only being offered partial relief and they will not benefit to the extent hoped for."

Some recruitment of academic staff had taken place although it was not possible to expand support staff at the same time, Dr Rotherham said.

Applications to UCCA increase

Applications for university places this autumn have risen by nearly seven per cent. The latest figures, compiled by the Universities Central Council on Admissions, show that there were 129,000 applications up to the closing date in December compared with 121,000 in the previous year.

The final figure is likely to be much higher. Late entries are still coming in to UCCA and applications through the clearing house scheme later this year may push the overall total to 139,000 compared with 131,000 last year. Optimistic forecasters say the final applications figure may even reach 142,000.

Trevor-Roper lecture in USA

Professor Hugh Trevor-Roper has been invited to Chicago next spring to take part in a series of nine public lectures on the American revolution and its effects in Europe.

Professor Trevor-Roper, regius professor of modern history at Oxford, will be joined by Professor H. A. L. Hart, principal of Brasenose College, and Professor Terence Hutchison, professor of economics at Birmingham University.

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Accustomed as they are . . .

by Sue Reid

The art of debate is not dead—nor even dying. Indeed, it is flourishing, albeit in a different style to that long nurtured by those established bastions of British debate, the Oxbridge Unions.

Influences from across the Atlantic—where debating tournaments operate in much the same way as baseball matches—are having their impact on Britain for the first time, thanks to a newly established universities speech association.

The Trans-Atlantic Universities Speech Association was set up last year under the chairmanship of Sir Cyril Philips, vice-chancellor of London University.

Last week the association staged its first major tournament at the University of London Union and played host to 30 debating teams from universities in this country, the United States and Canada.

The title of the new association, incorporating the word speech as opposed to debate or public speaking, was carefully chosen. It covers all types of debating style in use both in Britain and across the Atlantic.

American competition, especially in the Mid West, tends to be rigid, factual and closely linked to public speaking compared to the parliamentary techniques of debate favoured in Britain.

This is a far cry from the informal approach to debate practised by British and Canadian debaters. Certainly the British university contenders competing last week in London did not jib at dreaming up false quotations from imaginary people with the Oxford and Cambridge teams by far the worst offenders.

Angus McStrangle and Gervais Arbuthnot Throg-Morton were their favourite "props" and by the end of the five-day tournament the slightest whisper of these two names caused hilarity on the floor and even among the judges.

But the opposing styles of the three countries did much to even out the field. For with the tournament theme based on America's bicentenary year and many of the debate topics consequently centred on the United States the contestants from across the Atlantic had a head start. But the ingenuity of the British university teams, which included Glasgow and Sheffield, made their lack of hard facts barely noticeable.

Of the four categories of debate—persuasive, extemporaneous, impromptu and parliamentary—only the last was entirely familiar to the British teams.

By the final day the field had been whittled down to 10 individuals, many competing in more than one final and the Hon Colin Moynihan, of Oxford University, actually won a place in all four. In the parliamentary debate team final Oxford and Cambridge were there alongside teams from Toronto University, Chicago Law School, Chicago College and Iowa University.

The Hon Colin Moynihan, librarian of the Oxford Union, won the award for the best individual speaker at the tournament with Mr Joe Morris, of the Chicago Law School in second place.

In the team event Chicago Law School again won a share of the glory by taking the best overall team award. Oxford won second place and were also judged the best British team. Toronto University was judged the best Canadian team and Chicago Law School the best American team.

Formally recognized as having the gift of the gab is the Hon Colin Moynihan, left, winner of the Endsleigh trophy for the best individual speaker at the London tournament of the Trans-Atlantic Universities Speech Association last week. Helping him hold the plate is his Oxford University team partner the Hon Robert Norton. Oxford won the best British team award.

Britain needs shop floor graduates MP argues

by John Ross

Britain should emulate other countries and encourage the employment of "shop floor" engineering graduates, according to Mr Robert Sheldon MP, Financial Secretary to the Treasury.

Speaking at a Labour Party meeting in London last week, Mr Sheldon said that managers in British industry were less well educated and qualified than those in Europe, America and Japan. In many countries, top jobs went to graduate engineers who had started on the factory floor where they learnt production skills, how to deal with people and how to apply technology for better production.

The improvement of manufacturing industry was an economic priority, he said. Britain too would have to turn out shop floor graduate engineers and industry would have to learn how to employ them.

Unfortunately, the trend had been the other way. A recent survey showed that the percentage of graduates entering industry had fallen from 24 per cent in 1966 to 16 per cent in 1974.

"The universities ought to be very anxious about this figure. If the trend were to continue they could become remote from the economic needs of the country—studying, recording and commenting on the decline of our industrial society rather than preparing those who will be required to redeem it.

"Manufacturing industry cannot be proud of its record here. It is not making enough use of shop floor graduates. It is not using sufficient management talent in planning and production, in the better use of machines and the better understanding of the men who work them."

Writers can go to college

A college of higher education and an adult education college are to receive Arts Council creative writing fellowships under an extension of a scheme which originally only applied to universities and polytechnics.

Bath, Cornwall College of Higher Education, Reading and the City Literary Institute, London will each be offering fellowships to allow writers to spend a year with them from next September. Two universities, Sheffield and Southampton, will also receive fellowships next academic year.

The idea of the scheme is to encourage writers and poets to spend a year in a college or university so that informal contacts between students, staff and writers are encouraged, it is said.

It was established in 1974 when universities and polytechnics were invited to submit proposals. No polytechnic applied this year.

Don's diary

Thursday

Usual cycle ride to car-pool terminus. Mark register. Present: self, physics lecturer, mathematics lecturer, glassblower. Absent: computer manager. Occupy myself during trip with self-examination on ethical permissability of beginning diary on Thursday to make it lively and action-packed. Arrive office 9.15, deal with post and other miscellania; nothing remarkable, possibly a quiet pseudoweek after all.

11.00: meeting with the AUT about new academic contracts. This saga has continued over three years and latterly I am in the curious position of opposing things which, as AUT secretary, I once favoured.

When my predecessor circulated the first draft in 1971 it caused an uproar by including the possibility (then unthinkable) of academic staff redundancy. The timing was particularly unfortunate because it happened to correspond with the Murray Report on London University, which contained the recommendation (now sunk without trace) that Westfield ought to be amalgamated with other colleges.

Small, though, is never beautiful, and it is presumably only a matter of time before the Bloggs Report proposes the dismemberment of the large colleges into units about the size of Westfield; the massive inertia of the university will of course again prevent any resulting action. Astonishingly, we near agreement on a new draft to begin its Pilgrim's Progress through the committee structure, beginning with Tuesday's academic staff meeting.

Afternoon quiet; complete written case to finance committee for another half-secretary. Since 1973 have done everything possible to eliminate work; staff turnover has plummeted due to the economic situation, yet still paper accumulates. The main reason is union consultation. The college now has three joint committees, each meeting about six times a year, generating agenda, minutes and follow-up work. Firmly believe in the value of this, but we must not pay too high a price.

Does the college exist for teaching and research and for no other purpose" (principal); or is the welfare of cleaners as important as education of student" (union official)? As an ex-academic, I must surely subscribe to the former view; but recognise the need for enlightened industrial relations, if only as a means to those ends.

The College Library must discontinue *Chemical Abstracts*; potential readership too small and financial burden too great. Big is beautiful.

Meeting ends 12.30; return to find three phone messages. Working lunch; discussion of next Tuesday's case. Am offered the chance of squash game, succumb. Repair to courts, meet elusive professor and stand in the rain discussing a personal case, therefore arrive late.

Win (unusual), return to discover that one message was from a fellow administrator who has gone into a meeting unbriefed. Phone his secretary; she is with college secretary. Finance officer rings with urgent query about next Wednesday's appointment.

Must see college secretary. Gain admission to his office, along with his secretary, who must see him about charter and statutes. He is doing four things at once, fairly effectively.

Nearly get jammed in the doorway with college secretary, college secretary's secretary and assistant college secretary's secretary, all of us wanting to speak to most of the others. See maintenance officer about recruiting a plumber and about an employee who seems ill but won't have an X-ray; phone keeps ringing. Tell chief technician why he's not allowed to fill a vacancy.

Monday

Car-pool functioning efficiently. Post moderately voluminous, includes four applications for post of Spanish secretary. The maintenance officer has forgotten his glasses and can he try on some from the lost property? A lecturer's room is too cold (so is mine).

Another mistake in one of our contracts discovered by the finance department. No sign of No 2; grow desperate. Phone for temp, Tribunal office knows about tomorrow. No 2 arrives, car having broken down.

The cleaners are making threatening noises. Visit them briefly, arrange impromptu meeting with union branch secretary and housekeeping supervisor, which does not resolve much.

Spend an hour in the library; too tired to work but read *Scientific American* and am intrigued by story of monk who found that it took exactly one second to shout "benedictam dominum" and determined the velocity of sound by standing at various distances from brick wall and listening to echoes.

Discuss *Observer* article with third year physicist and ask if she's considered line management. She says its boring, is unsure how she knows, but has always felt that way. Proceed to bar, which is knee deep in fag ends.

Wife and guests arrive 7.45; guests are impressed by elegance of council room and obviously receive impression of Westfield life which bears more resemblance to what it was when I came six years ago than to what it is now.

Principal says "benedicam dominum", we sit down to dinner and I engross guests with story of monk who determined speed of sound by shouting at brick walls. Afterwards while carrying four cups of coffee am introduced to the new principal of London University, who seems nice, unfeminish and wears a red tie(!). Wife approved as most.

Friday

A hectic morning. Every time I pick up a pen the phone rings, every time I try to telephone the line is occupied. Have to be approachable, so callers include in rapid succession finance officer, professor, advertising agency and cook. Only a paragon could communicate equally effectively with them all.

Contacts, regardless of source, may be important or less so; urgent or not; easy or difficult. Handle piles of correspondence with mental graph and tackle the important, urgent, easy ones first, then explore outwards. Mediocre administrators tackle unimportant, easy ones before important, difficult ones. Example of mediocre administrator: self.

10.30: Meeting with NALGO. For once, smoothly produce background information as required with impressive show of *savoir-faire* usually so conspicuously lacking. Will the college regrade a supervisor? The union crowd withdraw clutching job-descriptions and we decide yes.

Amiable haggling over nursing staff salaries, students' union employees; resident staff changes, holiday entitlements. Slightly less amiable haggling over the college shop, partially closed to "save money—college secretary expresses regret but pleads economic circumstances. We produce statement on redundancies and vacancies policy: whether NALGO members should be privy to work for academic staff is discussed to little effect, since the two sides brandish letters giving contradictory opinions.

Tuesday

A big day. The college's first industrial tribunal. Travel by train to St Pancras; stand all the way and remember what London allowance is for. Deliver packages to University College and Courtauld Institute and proceed by Tube, falling victim to usual habit of taking most difficult route and arriving late.

Shown into waiting room marked "respondents" crowded with over 50 people. There is a party from the University of Surrey, where they have sacked their head gardener for alleged incompetence, consisting of four people *plus* barrister and the case is in its third day. Observe cynically that the waiting room is overheated and has chairs of better quality than those in Westfield SCR.

Frenetic activity; several tribunals sitting simultaneously. Ours is only a preliminary hearing to decide whether the application should be heard out of time; the applicant has already used the three stage college appeals procedure, culminating in a special meeting of council. Unfortunately the two processes are completely independent, and if the Industrial Tribunal decides to hear the case, they will undoubtedly go through the evidence again, the only effect of the college procedure having been a dry run for the applicant to sharpen his case.

Resolve to propose reviewal of our procedures. Hearing takes 90 minutes including adjournment. Verdict: application out of time and it could have been within time because the applicant consulted his union and the Citizens' Advice Bureau within the three months' limit. Stuff file (three inches thick) back into briefcase and depart, noting with alarm that our applicant is already phoning his solicitor.

Arrive back to find temp rapidly establishing control. She is one of those who could do my job better than I could—a catagory into which 85 per cent of the human race would appear to fall. Reception/security department beset by problems of obscure nature. Prepare a brief for the college secretary and dictate various letters. The Night Nurse is ill.

Wednesday

Car syndicate in disarray; lecturer in physics stays behind because daughter is ill and wife cannot afford to stay home. Feel envy—main academic advantage missed is the flexitime.

Appointments board for history of art lectureship. Having done my job in controlling paperwork have no say in the choice and therefore sit lobbying menally for the female candidate with the hazel eyes. During interview, however, she discloses interest and experience in studying the working of college administrations, resulting in immediate change of mind . . . another candidate speaks nine languages and takes us on a mental tour of Strasbourg art gallery; "Now I go upstairs . . . on the left there is a Titian . . . ."

Another interviewee asks about sabbatical leave arrangements; "I hope this doesn't mean you want one straight away", says the chairman. Another is worldly-wise: "With the benefit of hindsight, going to Oxford was a waste of my time . . . after Eton my parents wanted to send me to Florence".

It emerges during the morning that all the candidates know each other, the members of the department and most of the appointments board: "Oh, hello Charles, Caroline's here too", "I can't stand this", says the female, stalking off, "it's so *incestuous*". She gets the job.

Get out in time for lunch; but am waylaid by residence officer who says the cleaners are threatening to strike, apparently with the union's support. Astonished to find that this produces zero adrenal hormone output, in contrast to a year or so ago.

Eventually manage to see college secretary. We agree on a tough line. Dictate rude letter to branch secretary and have it delivered immediately, but when presented with its denies all knowledge and blames rumourmongers. A classic exercise in fog-shovelling. Feign temporary insanity and go home 10 minutes early.

John Buckingham

The author is personnel officer at Westfield College, London.

Obstacle course for those surveying to industrial tribunal hearing.

Past time for the call of industry to be heard

ERIC E. ROBINSON

"That's where you'll end up if you don't work hard for A levels." This was the legendary comment of the accompanying teacher at the end of a school sixth form visit to a factory. In spite of the heart-searching and nagging of some reformers, this still represents the predominant attitude of this country's academic profession to industry, which is transmitted with remarkable efficiency to each generation of the intelligentsia.

Industry is the great unifier of Right and Left on the campus: the enemy beyond the gates against whom all ultimately stand together. Students and professors have latterly not always preserved the decencies of debate but they stand shoulder to shoulder when the hooter sounds and the time clock beckons: they want to keep their hands soft and their collars clean.

To many outsiders an even simpler interpretation appeals—people in schools, colleges and universities do not like work and they are paid handsomely to avoid it.

This view gains in popularity as the economic screw tightens and academics continue to insist that the rules do not apply to them and that they are above the battle. Headlines asserting that the universities cannot possibly take any more cuts serve to confirm that their leaders are as irrelevant as we feared. Much bigger cuts are in prospect and we in higher education face an urgent need to justify ourselves.

Talk of continuing expansion in this climate is comparable in folly with the extreme Left's talk of revolution tomorrow when the real danger is of counter-revolution. The British economy is in flames and our intellectual leaders are merely competing for the role of Nero, balefully fiddling to the cacophony of their wails of self pity.

The basic mistake of the universities' leading apologists is to cling to the justification of an elite bread-on-the-waters concept of higher education that might be valid with respect to 3 or 4 per cent of the population but is nonsensical when we are talking of 20 or 30 per cent. The pre-Robbins concepts provide no rationale for the post-Robbins system.

There is a persuasive argument that the most able people should study unframmelled by utilitarian considerations and that they should constitute university communities generously funded and few questions asked about costs and benefits. Thus we might justify half a dozen British universities; but certainly not 40 more and a host of imitators besides.

For the large mass of higher education institutions, teachers and students we need a justification in terms of demonstrable social and economic utility. We have not provided this and now the demands of government and the public are becoming more strident and more specific. General, social and economic utility is no longer sufficient for we now have to demonstrate a significant contribution to industrial production, to the manufacture of saleable goods and services. And how remote we are from this when so few of our graduates are employed in even employable in industry.

Of course many academics, in universities as well as in polytechnics and colleges, are concerned to do something about this. But good intentions are not enough and we are judged by the consequences of our actions, not our intentions. We have the responsibility to succeed. Why do we fail?

Our self-importance encourages students to regard academic achievement as the ultimate success—the best become researchers, lecturers and professors and only the failures leave the academic community.

The importance we attach to "pure" knowledge has far-reaching implications. It is, for many, fundamental to the very ideas of university, scholarship and excellence and implies the essential inferiority, indeed impurity, of the incomplete knowledge and uncertainty on which action and decision in the real world are inevitably based.

Industrial relevance and vocationalism in education are usually associated, often too closely, with studies in science and technology. Lord Bowden, a veteran campaigner on their behalf, recently observed that young people are generally not interested in them.

I wonder if he is quite fair. Should the teachers of those subjects not accept some responsibility for making them so boring? Typically their presentation is long in technique and technicality and short in ideas and practicality. The average graduate in science and technology is a good formula acrobat but the average employer finds him lacking in commitment and ideas; and above all he finds him able to do little that is of any use.

Many well-meaning efforts to make courses in science and technology more relevant to industrial work have been misdirected because they have been too closely related to the exceptional needs and procedures of very large companies that can afford the narrow specialist and the cost of his further training. The small and medium-sized companies still constitute the bulk of our industrial effort and have paid scant attention to their needs.

It is a costly oversimplification to assume that industrially relevant education must be mainly of specialists in science and technology. The greatest failure of higher education's service to industry is in respect of the non-specialist, the preparation we give to those entering the many jobs for graduates, discipline unspecified. We assume wrongly that for large numbers of such recruits into industry we can do nothing better than provide a purely academic or liberal arts education, untainted at any point by practicality or relevance.

Every year we turn on to the labour market tens of thousands of supposedly highly educated people who are virtually unskilled. Many are for practical purposes almost innumerate or illiterate, incapable of anything more mechanically complicated than driving a car or playing a record, inarticulate in their own language and totally inept in any other.

Even in the subject of their academic specialism they are commonly incapable of any practical application of consequence and indeed consider it odd that anyone should expect it of them. Just what has the graduate in history, sociology or physics to offer the manager of a shoe factory or a farm, other than his genius?

All students, particularly those in non-vocational courses, should have the opportunity, the right and indeed the responsibility to acquire some useful skills and knowledge, to relate part-time and vacation work to their studies and their career possibilities, and to obtain academic credit for such activities.

Ultimately the objective should be to make every student's course sensible and meaningful in relation to a realistic expectation of career. For the present we cannot hope to achieve this; not because, as some would claim, the labour market is so unpredictable but because we have not given enough thought to the problem and we do not have the necessary skills.

Meanwhile even a gesture to utilitarianism would be of value in at least two ways: as an indicator of our willingness to make token response to a national need and to help subsidise to avoid the enlarging of unemployability. This is no extreme demand but a modest suggestion—that we try to ensure that every graduate should have some skill, able will be, of some use to someone some time.

News in brief

Sussex to accept OU credits

Agreement has been reached between Sussex University and the Open University about reciprocal recognition of course credits. Applicants to Sussex with a specified number of Open University credits will gain exemption from part of the BA and BSc degree requirements.

Essex merger confirmed

North East Essex Technical College, Colchester, and St Osyth's College of Education, Clacton on Sea, are to merge this September under the name of Colchester Institute of Higher Education.

Alan Owen, the present principal of the technical college, has been made director designate of the new institute and the two present vice-principals and the principal of St Osyth's are to be deputy directors. It is expected that the new institute will grow to 2,500 part-time and 4,000 full-time students.

Mulley in Europe

Mr Mulley, Secretary of State for Education and Science, this week visited the Institut Max von Laue—Paul Langevin (ILL) at Grenoble and the European Centre for Nuclear Research (CERN) at Geneva.

The ILL is a reactor installation, originally set up by France and Germany, to which the Science Research Council contributes 35 per cent of the running costs.

Sounding the depths

A new £600,000 Elooeywell series 60 computer system has been ordered by the Natural Environment Research Council for the Institute of Oceanographic Studies.

The computer, to be delivered next summer, will back up the British Oceanographic Data Service. It will be installed at the IOS laboratory in Birkenhead.

Tolley nominated

Dr George Tolley, principal of Shiffield Polytechnic, has been nominated for appointment as principal of the Sheffield City Polytechnic following the merger of the polytechnic and Sheffield City and Totley-Thornbridge teacher training colleges.

Oxford don heads Pugwash

Dr Dorothy Hodgkin, Royal Society Wolfson professor of crystallography at Oxford University and chancellor of Bristol University, is to be the new president of the Pugwash movement, an organisation of scientists concerned about world peace and disarmament.

Technical teachers' union calls for department of training

by Frances Gibb

A Government department of education and training should be set up to coordinate the work of the Manpower Services Commission and the Department of Education and Science, the Association of Teachers in Technical Institutions has proposed. The proposal is contained in the ATTI's comments on the Training Services Agency discussion paper, *Vocational Preparation for Young People*.

The ATTI welcomes many of the TSA's recommendations, in particular that vocational preparation should meet both vocational and social needs, but it is worried that education and training are separated by the way they are administered.

Any new provision of resources to meet training needs should be within the public education system, the ATTI says. But the DES and the Manpower Services Commission must work together over this provision. Difficulties that this might cause for the colleges of further education could be resolved by setting up a department of education and training.

The ATTI welcomes the TSA's proposals to reinforce links between schools and colleges but points out that for students who are not strongly career motivated the courses currently offered in further education colleges are not entirely suitable.

"If progress is to be made in introducing vocational preparation courses resources must be provided for adequate curriculum development and for the necessary training of staff."

The complementary role of schools and colleges of further education should also be seen as part of the training of careers staff for both the careers service and for schools, the ATTI says. It commends the local authority practice of placing careers offices in colleges of further education.

The TSA's proposals that employers should have improved financial returns for training need more detail and analysis before an adequate comment can be given, the ATTI says. But it adds that the community as a whole should be responsible for funding basic vocational preparation for young people, although industry should provide the resources for training in specific skills.

The ATTI agrees that "gateway" courses, which provide a general background appropriate to a broad category of jobs, should be extended and says it would wish to take part in curriculum development.

On the TSA's general intension of undertaking consultation on the matters in the discussion paper, however, the ATTI makes clear that in its view this is no substitute for establishing effective working machinery involving all parties at local and regional level.

Vocational Preparation for Young People from Training Services Agency, 162/168 Regent Street, London, W1R 6DB.

Economists castigated

Too many academic economists refused to take "a frank look" at the capitalist system, one of the country's leading economic theorists said last week.

Professor Joan Robinson, emeritus professor of economics at Cambridge University, said on BBC Radio Three last Sunday that economists immured in "neo-classical theory" often found out nothing about the real world. They had a vested interest in established views.

Answering questions from Professor Jens Valsey, of Bronel University, Professor Robinson, 72, contrasted the intellectual openness of the economic theorists of the 1930s, such as Keynes, with the dogmatism of modern economists, particularly over the notion of capital.

Professor Robinson, well known for her work on competition and the accumulation of capital, traced the developments of Keynes's ideas within the context of the work of other Cambridge economists.

Looking pessimistically at the present state of the British economy Professor Robinson said she was doubtful that Britain would get back on the growth path unemployment was reduced she predicted the current crisis would get worse. Only a fundamental change in the way the economy was run would help.

In Parliament

On unit costs Mr Mulley, Secretary of State for Education, said that in the financial year 1974-75 the net institutional recurrent costs per pupil or student were as follows:

England and Wales

	1975 Survey Prices £
Primary schools	215
Secondary schools	345
Polytechnics	1,500
Other major further education establishments	715
Universities (Great Britain)	1,685

These costs excluded expenditure on student support and loan charges.

Mr Britton asked Mr Mulley how many candidates applied for admission to read German, Spanish or Italian as main subjects in 1972, 1973, 1974 and 1975.

Mr Mulley gave the numbers of candidates applying through the Universities Central Council on Admissions for admission to universities in the United Kingdom, stating German, Spanish or Italian as subject of first choice. Statistics of applications to read these subjects in combination with others were not readily available except for computer studies.

United Kingdom Education Expenditure as a Percentage of GNP

	1970-71	1971-72	1972-73	1973-74	1974-75
Schools	5.6	5.8	6.0	6.2	6.5
Further education	1.1	1.1	1.2	1.2	1.3
Universities	1.1	1.1	1.1	1.2	1.3
Total	7.8	8.0	8.3	8.6	9.1

Mr Britton also asked Mr Mulley how many candidates applied for admission to read German, Spanish or Italian as main subjects in 1972, 1973, 1974 and 1975.

Academic year of application

	1972-73	1973-74	1974-75
German	678	725	782
Spanish	241	157	162
Italian	61	82	145
French/German	839	787	722

All subjects include "area studies".

Mr Britton asked what was the expenditure, as a percentage of gross national product, on university education, secondary education, primary education and further education in the United Kingdom as a whole in 1960, 1965, 1970, 1973 and in the latest year for which figures are available.

Mr Mulley said related information was as follows:

Financial years

	1970-71	1971-72	1972-73	1973-74	1974-75
Schools	5.6	5.8	6.0	6.2	6.5
Further education	1.1	1.1	1.2	1.2	1.3
Universities	1.1	1.1	1.1	1.2	1.3
Total	7.8	8.0	8.3	8.6	9.1

Information centre for careers staff

A training resources centre has been launched by the National Institute for Careers Education and Counselling to provide information for careers staff in secondary and tertiary education.

The centre will take information on new materials, modules and consultancy services to staff in their own areas. Local groups of careers teachers and individual schools and colleges will be able to draw upon its help.

Information available through the centre covers the coordination of careers guidance, the collection of information about students' self interviewing and decision-making skills. Further information is being developed on the design of careers education curriculum.

Briggs on leave

Professor Asa Briggs, Vice-Chancellor of Sussex University, who is becoming Master of Worcester College, Oxford, next autumn, is going on two terms' sabbatical leave from Sussex University, with effect from the end of the present term. The acting Vice-Chancellor will be Professor Michael Thompson.

NOTICE BOARD

Chairs

Dr A. M. Bowey, lecturer in organizational behaviour, Manchester Business School has been appointed professor of business administration at Strathclyde Business School.

Dr D. Regan, reader in the department of communication at Keele University, has been appointed professor of psychology at Dalhousie University, Nova Scotia, Canada.

Appointments

Universities

Bath
Visiting professor: J. Coveney (Ecole Nationale d'Administration, Paris).

Strathclyde
Senior lecturers: G. Kennedy, R. A. Hart (economics).
Lecturers: M. O'Callaghan (mathematics); D. B. Livingstone, I. R. Dunkin (pure and applied chemistry); W. J. Bonthron (environmental engineering); K. Collins (civil engineering); J. R. Piggott (food science and nutrition); D. Sixsmith (pharmaceutical technology); M. Pacione (geography); A. M. Trippett (modern languages); B. W. Hogwood (politics); D. Lyall (accountancy and finance); S. T. Parkinson (marketing); K. Miller (law school).
Research fellows: J. G. Crowder (pure and applied chemistry); J. T. Boyle (mechanics of materials); O'Blakeney (thermodynamics and mechanics of fluids); I. C. Wilkie (bioengineering unit); A. Lee (shipbuilding and naval architecture); H. W. Percy; M. P. Perkins (architecture and building science); S. Davis (applied microbiology); S. Bryan Thomas (pharmaceutical chemistry); V. G. Widmer-Thomas (Fraser of Allander Institute).

Leeds
Head of department: T. Clark (fine art).

Polytechnics

Leeds
Head of School of Education: A. Nicholls.

Colleges

National College of Agricultural Engineering, Silsoe
Head: B. A. May.

General

Department of the Environment
The following have been appointed to the Scientific Authority for Animals: Professor V. C. Wynne-Edwards, chairman of the Birds Authority Committee (for England, Wales and Scotland); Dr M. Brambell, curator of mammals, Zoological Society of London; Mr P. J. Conder, formerly director of the Royal Society for the Protection of Birds; Dr G. B. Corbet, deputy keeper, department of zoology, Natural History Museum; Mr R. S. A. Fitter, honorary secretary, Fauna Preservation Society; Miss A. G. C. Grandison, keeper of reptiles and amphibia, Natural History Museum; Dr C. J. O. Harrison, sub-department of ornithology, Natural History Museum; Professor Sir A. Huxley, Royal Society Research Professor, University College, London; Mr J. Reid, former member of the Animals Advisory Committee; Mr T. H. Scott, executive director, International Society for the Protection of Animals; Mr H. Tobe, secretary, National Zoological Association of Great Britain; Mr R. Upton, member of the Bird Advisory Committee for England and Wales.

Sir Sam Edwards, chairman of the SRC, has been appointed chairman of the Heads of Research Councils Committee. Mr Neville Williams, secretary of the British Academy, has been appointed chairman of the United Kingdom European Science Foundation Committee.

Forthcoming events

"Biology in society", is an eight-week series of lectures to be held at the Polytechnic of Central London from January 29. The aim of the series is to bring together people of diverse background in order to consider major advances in biology that are relevant to contemporary social needs and problems. Fee: £2.00. Enrolments and further details from: Netta Swallow, The Short Course Unit, PCL, 309 Regent Street, London W1.

* * *

Reading University Agricultural Club are holding their 102nd annual conference from January 30-31 at the Palmer Building, University of Reading. It will look at the problems of energy use in agriculture. Fee: £4.00 (75p for students). Further details from: D. Hopkins, Agricultural Club Conference, Department of Agriculture and Horticulture, University of Reading, Earley Gate, Reading RG6 2AT.

* * *

The Earl Lecture will be given on Staffordshire historians on 6 M. W. Greenslade, Editor, Victoria History of the County of Staffordshire on January 21 in the Foundation Year Lecture Theatre, University of Keele. The fourth annual Gregyung Anglo-French conference will be held at Gregyung, Newtown, Powys, from February 6-8. The subject will be the French "new novel" and the guest lecturer will be Francoise van Rossum-Guyon from the University of Amsterdam. Further details from Dr C. Evans, PO Box 95, University College, Cardiff.

* * *

"London Transport" is the theme of the lecture to be given by Sir Richard Way, principal of King's College at 5.30 pm on January 20th, at the Chemistry Lecture Theatre, Queen Mary College, University of London, Mile End Road, London E1 4NS.

A conference on ordinary and partial differential equations will be held at the University of Dundee, from March 30 to April 2. The programme will consist of invited and contributed lectures. Contributions are invited. Further details from Professor W. N. Everitt, Department of Mathematics, The University, Dundee.

* * *

A second conference on electronics training is being organized by the department of electronic engineering, University of Hull, from April 7-9. Fee £10.00. Further details from the Conference Department of Electronic Engineering, University of Hull, Hull HU6 7RX.

Recent publications

Housing Cooperatives by John Hands (published by the Society for Cooperative Dwellings, 381 Kennington Lane, London SE11 5QY; £1.50 plus 25p postage) gives a detailed examination of practical problems and attempted solutions in one of the newest housing cooperatives in Great Britain.

* * *

Autonomy and Accountability in Educational Administration edited by Meredydd Hughes and John Richards (published by the University College, Cardiff, £1.50) is a report of the fourth annual conference of the British Educational Administration Society 1975 with collected papers on local government, institutional autonomy and public accountability.

* * *

The Journal of Literary Semantics edited by Trevor Eaton (published by Julius Groos, 6900 Heidelberg, Germany, Hertzstrasse 6, PO Box 102423; DM15) publishes articles on all aspects of literary semantics dealing with the educational problems inherent in the study of literature.

* * *

Working Holidays edited by Hilary Sowell (published by The Central Bureau for Educational Visits and Exchanges, 43 Dover Street, London W1H 3PN, 85p plus postage) contains details of thousands of paid and unpaid jobs all over the world for young people.

Course news

The Polytechnic of Central London is running a two-year part-time postgraduate diploma in linguistics. It is intended for anyone interested in linguistics, especially language teachers, lecturers in teaching training colleges and polytechnics, colleges of further education, psychologists and translators. Further information from: Alex Ans-wers, Senior Lecturer, PCL, Red Lion Square, London W1R 4SR.

* * *

"Measurement techniques in heating and ventilating acoustics", a three-day course to be held at the Polytechnic of the South Bank, Borough Road, London SE1 0AA, from January 28-30. Fee: £24.00. Application forms from: Head of Registry, The Polytechnic of the South Bank.

* * *

Partnerships in urban development, a course organized by the Centre for Advanced Land Use Studies will be held on February 5 at the Bloomsbury Centre Hotel, London, WC1. It is designed for members and officers of local authorities, developers, private practice consultants and financial advisers. Fee: £29.00 plus VAT. Further details from Mrs G. MacKinnon, CALUS, College of Estate Management, Whiteknights, Reading, RG6 2AW.

* * *

"Poetry—the creative art" is a one-term course to be held at the University of London, Goldsmiths' College, Department of Adult Studies from January 17. It will consist of both workshop sessions and visits from contemporary poets. Fee: £1.30. Further details from: Department of Adult Studies, Goldsmiths' College, Lewisham Way, New Cross, London SE14 6NW.

* * *

"Introducing marketing for public transport" is a three-day course organized by the Centre for Transport Studies, Cranfield Institute of Technology to be held there from February 4-6. Fee: £90.00. Further information from: Roger Slevin, Centre for Transport Studies, Cranfield Institute of Technology, Cranfield, Bedford.

* * *

A Couple from Manchester and *Something in Common* are the first of a booklet series in which working people in a Manchester overspill town tell their own stories. They are published by the Institute of Advanced Studies at Manchester Polytechnic, and are distributed by the Writers and Readers Publishing Cooperative, 14 Talacre Road, London NW5, 20p.

* * *

Project Methods in Higher Education edited by Sinclair Goodlad (published by The Society for Research into Higher Education, 25 Northampton Square, London EC1V 0HL, £3.60). It provides a basic introduction to project methods and is mainly concerned with the general philosophy and the problems associated with it.

* * *

Farming in Britain by Leslie Thomas (published by The Association of Agriculture, 78 Buckingham Gate, London SW1E 6PE, 60p plus postage). A booklet providing background information for townspeople who are interested in finding out more about modern farming and the countryside.

* * *

Industrial Performance Analysis published by *Investors Chronicle* and ICC Business Ratios (available from Throgmorton Publications Limited, 30 Finsbury Square, London EC2A 1PJ, £5.60). A new publication summarizing the progress achieved by sectors of British industry and commerce over the three year period ending in 1974.

Grants

Bristol

Geology—£23,333 from the NERC (supplementary) towards an investigation on sedimentary facies of the Western approaches under the direction of D. Hamilton.

Architecture—£15,500 from the Department of the Environment towards an investigation on better insulated houses under the direction of P. Burberry.

Anatomy—£6,682 from the MRC for research into the HF carrier clipping hearing aid under the direction of Professor R. L. Gregory.

Theoretical Chemistry—£4,645 from the Ministry of Defence towards an investigation on optically pumped submillimetre lasers under the direction of T. Bunbury.

Aeronautical Engineering—£4,525 from the Ministry of Defence for study on experimental research on jet interference under the direction of Professor L. F. Crabtree; £7,637 from the Ministry of Defence (supplementary) towards an investigation into the flow switching phenomena mainly gas turbines under the direction of Dr B. J. Hunt.

Surgery—£2,600 from the South Western Regional Health Authority for research on the role of delayed cutaneous immunity in Herpes Simplex Keratitis, £1,350 from the South Western Regional Health Authority towards an investigation on the value of ultrasound typing in cortical grafting under the direction of D. L. Easty, Bristol Eye Hospital.

Edinburgh

Business Studies—£2,500 from the Chemical and Allied Products Industry Training Board in support of an injury of job enrichment scheme under the direction of Professor H. Behrend.

Technology—£4,736 from the Department of the Environment in support of excavations at Hambleton Hill Camp, Dorset, under the direction of R. J. Mercer.

Forestry and Natural Resources—£2,500 from the Highlands and Islands Development Board towards the cost of a post-doctoral research assistant and Land Use Planning Officer and John Phillips and Partners, Scottish Farm Management Services.

Physics—£9,321 from the MRC for carrying out experiments in the community aimed to find if coronary heart disease can be prevented in healthy men by modification of certain dietary habits under the direction of Dr M. Oliver.

Tropical Veterinary Medicine—£7,500 from the Ministry of Overseas Development for the analysis of tick survey data, under the direction of Professor Sir Alexander Robertson.

Geology—£1,777 (supplementary) from the NERC in support of a petrochemical investigation of the cameroon line volcanoes under the direction of Dr J. G. Fitton.

Exeter

Biological Sciences—£7,000 from the RSPCA for a post-doctoral fellow to work for 18 months on an investigation into the present status and distribution of the fox in Britain under the direction of J. J. Lloa.

Chemistry—£9,000 from the SRC to support a project on the electrophilic substitution of alkenes, with special reference to nitration and halogenation under the direction of Professor K. Schofield and Dr R. B. Moodie.

Glasgow

Zoology—£4,330 from the ARC for research on neurosecretory substances in osteragia species, their nature and role in diapause under the direction of Professor D. R. Newth.

Forensic Medicine—£63,600 from the Department of the Environment for the elucidation of the role of smoke and toxic gases in fatalities occuring in fires in buildings under the direction of Professor W. A. Raviand.

Chemistry—£4,816 from the SRC for studies of nuclear quandrupole resonance phenomena in solids; £8,400 from the SRC for work on complexes SF2 and SF4 derivatives; £10,700 from the Department of Astronomy for a global numerical treatment of the restricted three-body problem in the sub-jupiter case.

Infectious Diseases—£18,302 from the Scottish Hospital Endowments Research Trust for an investigation into laboratory aspects of non-bacterial gastroenteritis of infants.

Hull

Applied Physics—Dr G. J. Parker, £31,882 (supplementary) for an investigation on stimulated and anomalous X-ray emission from laser produced plasmas; Professor Ramsden, £8,200 from the United Kingdom Atomic Energy Authority for investigations of interaction of ion+ radiations with solid targets; Dr R. D. Greenough, £3,228 from the SRC for an investigation on magnetostriction and thermal expansion of ion aluminium alloys.

Biochemistry—Dr P. J. Large, £500 (supplementary) and £15,000 for an investigation on secondary amine oxidase system pseudomonas aminovorans; Dr Eldridge, £3,848 from the Wellcome Trust for an investigation on mycobacterium avium.

Chemistry—Dr G. W. Gray, £15,000 from the SRC for an investigation of the preparation and physical studies of a range of smectogens; Professor W. C. E. Higginston, £2,650 from the SRC for an investigation on studies of oxphalogen free radicals in aqueous solutions.

Economics and Commerce—Professor J. B. G. Wilson, £5,500 from the United Farmers Trading Agency for an investigation into the inquiry into the financing arrangements of agriculture cooperatives in East Anglia.

Electrical Engineering—Dr G. S. Brown, £7,000 from the Nuffield Provincial Hospital Trust for an investigation into the reorganized national health service; £18,091 from the Department of Health and Social Security for an investigation into the deployment management and morale of NHS paramedical workers.

Psychology—Professor A. D. B. Clarke, £7,470 from the Department of Health and Social Security for an investigation on experimental programme for pre-school intervention with severely subnormal children.

Newcastle upon Tyne

Human genetics—£18,392 from the Multiple Sclerosis Society to provide further support for research into genetic factors in susceptibility to multiple sclerosis under the direction of Dr D. P. Roberts.

Neurology—£145,811 from the MRC for further support for the research programme on histological, histochemical, immunological and ultrastructural studies of neuromuscular disease in man and animals under the direction of Professor J. N. Walton.

Ophthalmology—£6,065 from the Rudolf and Lionel Jacobson Trust to support the development of keratoplasty and the demonstration of ophthalmic surgery.

Psychological medicine—£10,514 (anonymous) for research on a phenomenological study of psychotic illness applied to genetic investigations in individuals under the direction of Professor Sir Martin Roth.

Civil engineering—£14,235 from the SRC for research on quasi-elastic and the timing of traffic signals in a road network under the direction of Dr R. D. Allsop.

Agricultural biochemistry—£11,000 from ICI Limited for an investigation on the source for use in work on NPN with low protein to high fibre rations under the direction of Professor D. G. Armstrong.

Child Health—£2,367 from the Newcastle Area Health Authority for a study of potentially brain damaged children in the Newcastle survey of child development under the direction of Dr D. A. Nelson.

Clinical Biochemistry—£3,745 from G. D. Searle and Company limited for research being carried out under the direction of Dr C. P. G. Price.

Neurology—£2,033 (supplementary) from the MRC for research into peptido hydrolases in normal and myopathic muscle under the direction of J. N. Cunningham.

Pathology—£1,707 (supplementary) from the National Radiological Protection Board to meet additional costs arising in research into access of circulating monocytes to the pulmonary alveolus under the direction of Professor A. B. Lopplestone.

Geology—£40,934 from the NERC for an investigation on the diagenesis of crustal organic matter and its optical properties in the ultraviolet under the direction of Dr D. G. Murchison; £13,800 from Shell International Petroleum Maatschappij B.V. for investigation on properties of low ranked coals in relation to petrology of rank under the direction of Dr D. G. Murchison.

Plant Biology—£7,000 from the General Council of British Shipping for research into the interaction between phytoplankton including coating of ships under the direction of Dr B. L. Bell.

Zoology—£2,200 (supplementary) from the NERC for continued research work on taxonomy of a genus of trichopters under the direction of G. N. Phillipson.

Warwick

Biological sciences—Professor D. L. Burke, £33,812 from the MRC for research on temperature sensitive mutants of murine sarcoma virus; £9,000 from the Wellcome Trust for research on cellular receptors for double-stranded RNA and interferon; £5,527 from the Wellcome Trust for research on biochemical events of negative-strand virus multiplication; £11,500 (anonymous) from the Cancer Research Campaign for research on biological effects of double-stranded polyribonucleotides; Dr N. J. Dimmock, £16,000 from the Research Campaign for research on nuclear function in virus multiplication; £11,627 from the Cancer Research Campaign for research on cellular control of the transcription of virus RNA; £10,951 from the MRC for research on fundamental properties of myxovirus RNA replication; Dr N. J. Dimmock and Dr S. L. Kennedy, £17,677 from the MRC for study; £17,677 from the Cancer Research Campaign for research on expression of viral genes in cells abortively and with gain transformed by ultraviolet-irradiated and sarcoma viruses.

Honorary degrees

Durham
DD: Professor Pierre Maurice Benoit, director of the Ecole Biblique.
DCL: Charles Grey, member of the Durham University Council.
DSc: Professor M. F. Atiyah, president of the London Mathematical Society.
LittD: Professor K. W. Britton, former holder of the chair of philosophy at Newcastle upon Tyne University.
MSc: R. Spencer, deputy director, British Trust for Ornithology.

Exeter
LLD: Rt Hon Lord Denning; Dr R. C. Tress, Master of Birkbeck College, London.
DSc: Dr E. J. Denton, director, laboratory of the Marine Biological Association, Plymouth.
D Mus: D. V. Willcocks, director, Royal College of Music.
MA: C. R. Henson, principal of the St Loyes Occupational Therapy School, Exeter.

Keele
Honorary professor of music: H. Lennox Berkeley, composer.

Open University programmes January 18 to 23

Sunday January 18

BBC 2
06.15 • European Economic Community: Worker Participation (PO53; prog 03).

RADIO 4 (VHF)
09.40 • Use Your Head: Keep It Young.
09.50 • Open Forum.
10.15 • European Economic Community: Agriculture—a community policy (PO53; prog 12).

Thursday January 22

BBC 2
18.15 • Use Your Head: Re-view.
18.40 • Open Forum: Introductory programme for new students.

Friday January 23

RADIO 3 (VHF)
10.10 • Open Forum.
10.40 • European Economic Community: Labour migration in Europe (PO53; prog 9).

There are no other Open University programmes during this week—repeated programmes.

Noticeboard is compiled by Patricia Saurinelli and Myrna Monsurate

THE MIDDLESEX HOSPITAL
Medical School
(University of London)

This NUS poster gives one view of what it's like to be a foreign student in Britain. Tim Albert has been looking at the position of such students, set against recent calls for an increase in their fees and the drop in demand from British students for some university places, particularly in science and engineering

There are 46 students taking the master's degree course in hydrocarbon chemistry at the University of Manchester Institute of Science and Technology this year. Two are British. On the master's course on the transmission of electric power there are 26 students. Only one is English.

Extreme cases like this have added fuel to the debate that has been taking place over the past few months, both privately (in working parties set up by the Committee of Vice-Chancellors and Principals and by the Cabinet office) and publicly (in the leaders and letters pages of our home newspapers).

In the past few weeks the CVCP interim report has made clear the possible policy options while recommending a temporary rise in fees to meet inflation and the Department of Education and Science has announced a 30 per cent increase in fees, which more or less meets this recommendation.

But the central issue remains unresolved: should (or could) overseas students be made to pay more realistic fees for the relatively cheap British education they seem to be queueing to receive?

The main trouble is the extreme sensitivity of this area, and the fact that the debate can all too easily take on the characteristics of a witch-hunt against the foreigner. It is mainly for this reason that it has aroused the ire of unions, academics and miscellaneous liberals. Otherwise, a close study seems to indicate that the call for higher fees may not be so illogical, unnecessary or even reactionary as some would have us believe.

Rather unfortunately perhaps, one of the original advocates of change was a Conservative MP, Dr Keith Hampson, the member for Ripon and secretary of the party's back bench education committee. Speaking on October 24, for example, at Leicester Polytechnic, he said: "Some of our most famous professors and some of our most expensive departments of higher education are educating considerably more overseas students than British students. We must work towards doubling or tripling the present level of overseas students' fees. The British taxpayer will demand nothing less."

Another leading advocate is Lord Bowden, the principal of UMIST. In his speech to the court of governors in January, for example, he said: "We have always been extremely proud of the fact that we have been able to educate people from all parts of the world. We shall continue to do so, but it worries me greatly to find that some of our most effective graduate schools are educating men who, in the natural course of events, will go home and compete with hard-pressed British industries, whose profits have to pay the £3,000 per year which it costs us to educate every postgraduate student.

"Why don't British postgraduates come here? I wish I knew. Grants are too small and so many English students cannot afford to accept places . . . and many of them are becoming disillusioned."

Even the *Guardian* has joined in. In a leader on December 3, it wrote: "Opponents of differential fees agree that it would be unfair to the less developed world to require foreign students to pay an economic price for their education. But they blithely miss three weighty arguments: first, that many foreign students at British universities are not from the less developed world. Second some of the less developed world is no longer poor. Third, even the poor, less-developed states have many rich families sending children to British universities.

"Of course poor students should be subsidised. But this is a task for the Ministry of Overseas Development not the Ministry of Education. Britain is in no position to be subsidising rich foreigners when we cannot even give grants to working class children who stay on to the sixth form."

The first problem, of course, is making sure we know what we mean when we talk of overseas students. The University Grants Committee has its own definition, based mainly on three years residence in the United Kingdom, and which it has used since April 1967 to implement the higher rate of fees now paid by overseas students. The British Council, responsible for keeping the statistics of overseas students in the United Kingdom, has its own, slightly broader, definition.

It says that a person is an overseas student if he is over 18, if his permanent home is overseas, if he has come to Britain for full-time study, research or practical training of at least six months, and if he is expected to return to his own country at the end of his studies or training.

These students "generally" pay the higher fees. They do not include those with work permits, those attending evening or part-time classes, those living *au pair*, those under 18 who have come here for schooling, those who come from overseas but who have been in the UK long enough to qualify for local authority grants, those on short-term visits, or on study tours or youth exchanges.

Using this definition, the British Council says there were an estimated 95,209 overseas students in the United Kingdom during 1973-74. Of these, 56 per cent were in the public sector: 25,318 in universities, 6,138 at polytechnics, 21,131 at further education establishments, and 577 at colleges of education. In the private sector, 528 were at inns of court, 20,282 in hospitals, 6,956 having practical training, and 14,279 having tuition in private colleges.

The more obviously vocational subjects have the most appeal. In the universities, 26.6 per cent were studying engineering, technology and applied science, and 20 per cent social, administrative and business studies. In the polytechnics, the respective figures for these subjects were 39 per cent and 25.8 per cent. In the further education establishments 41 per cent were studying GCEs and CSEs. As to where they studied, the majority (46 per cent) were in London, with very few (15 per cent) in the North East, Yorkshire and Humberside and the North West.

Just where these students originally come from has been changing. In 1972/73, the number coming from "foreign" countries overtook the number coming from "Commonwealth" countries for the first time, according to the latest figures the proportions are now 53 per cent foreign and 47 per cent Commonwealth.

The top five countries at the moment are Malaysia (10,582), Iran (4,696), France (4,203), USA (4,055), and Nigeria (3,426). Ten years ago the leaders were Nigeria (8,067), India (4,343), Jamaica (4,092), Malaysia (3,230), and France (2,580). There has been an increase in students from the OPEC countries, but this can easily be exaggerated: in 1973/74 they made up no more than 13 per cent of the total.

The increasing numbers of overseas students can be misleading, particularly when taken out of the context of the general rise of student numbers in the United Kingdom. Although the figures are not up to date, the indications are that the actual proportion of overseas students in the United Kingdom is not changing particularly dramatically.

The CVCP figures for the universities, for example, show that the proportion of overseas graduates in 1964-65 was 3½ per cent, and of undergraduates 6 per cent. According to the provisional figures for 1974-75, these had gone down to 3½ and 5 per cent. According to DES figures, the proportion of overseas students in further education went up from 9.5 per cent to 9.9 per cent between 1963-64 and 1973-74, but the proportion in higher education over the same period went down from 8.9 to 7.2 per cent.

However, there does seem to be a recent and rapid rise in demand. The Universities Central Council on Admissions reports that between 1972 and 1973 the number of overseas applications for undergraduate places increased by 12.5 per cent. The increase then went up to 16.3 per cent in 1974 and to 18.4 per cent in 1975.

Just who foots the bill for them all is not known. The Ministry of Overseas Development pays for about 4 per cent (3,802 in 1973-74), which costs about £11m a year. The British Council estimate that a quarter of the students come on some kind of award scheme: "The remainder are dependent on their families, local communities in their home countries or their personal savings.

"If they are student nurses, pupil nurses or language assistants they receive payment for their service. If they are trainees in industry or the professions they may sometimes receive payment while in training."

Since 1967, overseas students have had to pay higher fees than their UK contemporaries. The average sums are £350 a year for full-time advanced courses in universities, polytechnics and colleges of education (compared with an average of £140 for UK university students, and £115 to £120 for those in other institutions) and £250 a year for full-time non-advanced courses (compared with £80 for UK students).

This is generally recognized to be somewhere between three to four times below the economic rate, and as civil servants say laconically, the large element of subsidy must not be discounted. The recently announced 30 per cent increases, coinciding as they do with what the CVCP says was a 29 per cent increase in its costs (including part-time staff, salaries) during the 1974 calendar year, is unlikely to make any significant difference.

But there are no firm figures on the net cost. The CVCP interim report estimated that, for universities alone, the amount of money spent on providing university education for overseas students came to about £50m a year, excluding the service of capital investment or the cost of equipment. This comes to about 10 per cent of the total recurrent grant of the universities. Dr Hampson, who has attacked the lack of firm data on this as "appalling", says that, according to his calculations, the annual net cost of overseas students in higher and further education could be anything between £45m and £75m.

The immediate question this raises, of course, is why have overseas students here at all? Here, however, the arguments in favour seem overwhelming, and can best be divided into five categories: ethical, academic, numerical, economic, and political.

The ethical holds that universities must be open to all according to ability and not nationality. The academic argument holds that Britain has a duty to teach others what she knows, but notes that there are considerable returns in terms of cross fertilization of ideas (and the presence of ex-President Gowon on a politics course at Warwick University must be an example of this). The numerical argument notes that the interest of United Kingdom students in a number of fields, such as engineering, is waning and that the presence of overseas students on them is preventing premature deaths of departments and courses.

The fourth argument, the economic, holds that it is misleading to talk in terms simply of net costs, and that the provision of education must be seen as something which, although costing universities money brings in foreign exchange now, and possible orders for British-built equipment in the future. Finally, the political argument holds that it is good public relations: the recent state visit of ex-Edinburgh University student President Nyerere is a good example.

Having established that there are considerable benefits from having overseas students here, and that there are considerable pressures for change building up over the country, it is worth looking at the various policy options.

There are two main possibilities: altering the fees, or introducing quotas. (It has also been suggested in some quarters that a minister give overseas students a grant, but this is not taken very seriously by others who argue that the appointment of yet another minister is just as likely to add to present confusion as to solve it.)

The question of quotas is best illustrated by the experience of London. The capital city takes the brunt of overseas students. In the case of those reading advanced courses, this has little direct effect; but in the case of those following non-advanced courses it means in effect that the London ratepayers are subsidizing a disproportionate number of overseas students. Accordingly the Inner London Education Authority have produced a discussion document (which they insist, in spite of rumours, has not been cancelled) and whose possible solutions include the introduction of an upper limit for overseas students.

But a quota system does have enormous difficulties. As the CVCP report on the universities pointed out: "How big is the quota to be? How is it to be broken down between universities, or between undergraduate and postgraduate entrants? How might it regulate numbers from different countries? Would it be acceptable for individual universities to exceed their quota in the knowledge that no compensating support would be forthcoming from the UGC, either in recurrent or capital grant? Could a university quota system be compatible with policies adopted for fees in the local authority institutions?"

It is understood that the DES does not consider quotas as a viable policy option.

But perhaps the biggest argument against the quota system is that, if the fees for overseas students were to be increased again, it would no longer be necessary. The most obvious difficulty here is one of political expediency: we are one of a tiny number of countries who charge higher fees for foreign students, and it would be highly unpopular to increase the differential.

There is, however, one way of reconciling the two, and that is to abolish the differential rate, while at the same time raising quite considerably the level of fees for *all* students. The CVCP report shows that the proportion of university income that comes from fees has steadily been declining. It was about 30 per cent up to 1939. It dropped steadily to 23.2 per cent in 1946-47, to 10.8 per cent in 1956-57 and to 6.9 per cent in 1966-67 and (the latest firm figures) 5.4 per cent in 1972-73.

Thus one could move towards restoring the proportion to somewhere nearer its pre-war level, perhaps initially at 20 per cent, which would involve a doubling of fees. (The CVCP in one of its splendid phrases seems to advocate this when it says in its interim report that there must be some increases of fees, which must be "arbitrary but founded on precedent.") It would effectively mean that overseas students were receiving less of a subsidy: it would mean little to most British students whose fees are paid out of public funds.

There are, however, three important provisos. One is that central government must work out some system of helping out the hard-pressed local authorities with funds from central sources. Second, in order to continue to encourage students to study here from the poorer developing countries, the level of money available to them through the ODM must be increased. Third, in order to continue to encourage United Kingdom students who presently have to pay their own fees, the present grant and fee system must be reviewed.

If, but only if, those things were done, it would be possible to abolish the unpopular differential fee structure at the same time as reducing the economic pressure on the system of post-secondary education. Simply raising the fees for foreign students or the other hand, would be unjustifiable and unnecessary, and it smacks more than a little of xenophobia.

The first Islamic crusade to British academia

This year the Supreme Council of Islamic Affairs in Egypt is sending 28 major scholars to Britain. They will be led by the Sheik Al Azhar, head of the Al Azhar University in Cairo, the oldest university in the world. The occasion of their visit is the World of Islam Festival, due to be held in London in April, May and June.

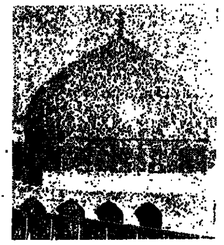
Before, during and after the festival there will be an academic programme of 106 public lectures, at least 24 lectures to members of learned societies and 10 colloquia open to scholars. It is hard to recall any programme of a comparable scale being mounted in Britain on a single subject.

The festival is the fruit of some five years preparation and will cost around £2m, contributed largely by the Islamic countries themselves. It was first mooted during an Islamic arts festival held at London's Institute of Contemporary Arts in 1971.

Mr Antony Hutt, 43-year-old organizer of the academic programme, says: "We thought that British people should know more about the 700 million Muslims in the world and about a religion that is still expanding."

This summer's festival involves such institutions as the Arts Council, the British Museum and the Victoria and Albert Museum. There will be an "arts of Islam" festival at Hayward Gallery on the South Bank. There will be exhibitions of Persian carpets, embroidery by the Hausa people in Northern Nigeria, music and musical instruments and Islamic metalwork. The science and technology of Islam will be featured at London's Science Museum.

Both Oxford and Cambridge have had chairs of Arabic for over 250 years. But the tradition in British higher education is for the study of Hebrew to overshadow the study of Arabic and other aspects of Islamic culture. In the late nineteenth century the Royal Asiatic Society, which was founded in 1823, campaigned strongly for more oriental studies in British universities, pointing out that, though the nation had a huge oriental empire, it was doing less about the subject than almost any other European country.



Isfahan's Lotfollah mosque

In the whole of the United Kingdom there were only 29 university posts at any level for which knowledge of an oriental language other than Hebrew was an essential qualification. The campaign led to the establishment of the School of Oriental Studies (later Oriental and African Studies) in London University in 1917.

But it was the Second World War —and the discovery that the British were so hopeless at oriental languages that it was almost impossible to interrogate Japanese prisoners effectively—that gave a major boost both to SOAS and to oriental studies elsewhere.

In 1947 an interdepartmental committee under Lord Scarborough's chairmanship advocated earmarked grants to stimulate expansion in oriental, Slavonic, East European and African studies. During the following quinquennium staff posts in oriental and African studies increased from 106 to 254. The ending of the earmarked grants in 1952 was greeted with dismay by the departments concerned.

The growth in staff was not matched by a growth in undergraduate numbers. In fact, over the 1947-52 quinquennium there was a decrease in the honours students taking oriental and African studies. However, by the late 1950s student applications were booming and in 1959-60 there were 262 honours students, compared with barely 100 just after the war. In Cambridge the number of students taking Islamic studies increased from eight in 1956-57 to 29 in 1960-61.

Nevertheless, another committee, under Sir William Hayter, which reported in 1961, was severely critical of British universities' performance in these areas. The need, it said, was not so much for more language departments as for greater integration between their work and that of other subjects. University arts faculties were still dominated, anachronistically, by the perspectives and cultures of Western civilization.

So Hayter's chief recommendation was that universities should encourage more centres of area studies. In the past 15 years, therefore, there has been some growth in courses offering modern Arabic or Arabic with other subjects. Durham offers a degree in modern Middle Eastern Studies and Islamic civilization is an option in its general studies BA.

At Edinburgh, Arabic can be taken with English literature, French, Greek, Hebrew, Italian, Latin, Persian, Russian, Spanish or Turkish, and there are options in Arabic and in Islamic history in its ordinary BA/BSc (social science) degrees.

At SOAS, Arabic can be combined with economics, geography or politics. Sussex has a school of African and Asian studies.

In general the growth of Islamic studies remains disappointing. Only Lancaster among the new universities teaches the subject, concentrating particularly on the influence of the Islamic world and its areas of contact with Europe. Lancaster is also in the vanguard of comparative religious studies teaching. Elsewhere, Islam is slowly permeating theology courses, usually as an option.

The organizers of the World of Islam Festival believe that the greater understanding of the Islamic world which they hope to instil in the British will aid growth of Islamic studies in higher education.

Peter Wilby

A harsh new year of college decisions

One of the most difficult tasks to be undertaken this year will be the rationalization of education departments which the Department of Education and Science propose should follow their reorganization of the 155 colleges and polytechnics begun in 1973.

During the next few months the DES will ask Regional Advisory Councils to convene meetings to discuss rationalization proposals which must mean the closure of some departments to strengthen the work of other, more successful units.

The DES's initiative follows the results of an internal survey, published in part, by *The THES* last month, which showed considerable imbalances in recruitment to departments of specialisms throughout the college system.

The figures confirmed a depressing trend away from the sciences and mathematics, which is mirrored in general recruitment to polytechnics and universities.

Table 1 College specialisms: New entrants to non-graduate initial courses (1974)

College	Maths.	Physics and Chemistry	English	History	RE
North Staffs. Polytechnic	14	19a	38	28	16
Leeds and St Hild, Durham	14	1	35	18	16
Sunderland Polytechnic	14	nil	45	19	18
St Mary's, Twickenham	16	2	30	20	25
Newcastle Polytechnic	18	34	74	50	38
Norwich City College	23	6	78	46	16
Cheltenham Ladies'	14	14	34	16	19
Whitelands St George's	16	1	59	57	22

Figures for:
1 Second year recruitment.
2 Third year recruitment.
3 Figures for combination of physical and biological sciences.

Table 2 College specialisms: New entrants to non-graduate initial courses (1974)

College	Maths.	Physics and Chemistry	English	History	RE
North Staffs. Polytechnic	16	4	59	33	16
Leeds and St Hild, Durham	14	10	47	26	17
Sunderland Polytechnic	14	nil	45	19	18
St Mary's, Twickenham	16	2	30	20	25
Newcastle Polytechnic	18	34	74	50	38
Norwich City College	23	6	78	46	16
Cheltenham Ladies'	14	14	34	16	19
Whitelands St George's	16	1	59	57	22
Bishop Otter, Chichester	19	1	71	27	27
Trent Park, Enfield	18	1	71	19	19
Bede, Durham	14	nil	48	26	16
Westminster, Oxford	14	1	50	18	16
Bishop Grosseteste, Lincoln	16	nil	50	16	16
Bulmershe, Reading	16	1	50	16	16
Bishop Lonsdale, Derby	16	1	50	16	16
Dudley College of Education	16	1	50	16	16
Ripon College, Cuddesdon	16	1	50	16	16
Trevelyan, Durham	16	1	50	16	16
Wall Hall, Aldenham	16	1	50	16	16
Worcester College of Education	16	1	50	16	16
Bishop Otter, Chichester	19	1	71	27	27
Trent Park, Enfield	18	1	71	19	19
Bede, Durham	14	nil	48	26	16
Westminster, Oxford	14	1	50	18	16
Bishop Grosseteste, Lincoln	16	nil	50	16	16
Bulmershe, Reading	16	1	50	16	16
Bishop Lonsdale, Derby	16	1	50	16	16
Dudley College of Education	16	1	50	16	16
Ripon College, Cuddesdon	16	1	50	16	16
Trevelyan, Durham	16	1	50	16	16
Wall Hall, Aldenham	16	1	50	16	16
Worcester College of Education	16	1	50	16	16

The figures confirmed a depressing trend away from the sciences and mathematics, which is mirrored in general recruitment to polytechnics and universities.

In the case of the colleges, where reductions from 114,000 to 58,500 in teacher training places by 1981 are proposed, the DES feared that such cuts might tempt institutions to fill their places with popular subjects like English and History at the expense of hard recruiting areas like chemistry and mathematics.

Until this year college reorganization plans approved by the DES have taken no account of the academic strengths of departments within colleges. The major weakness of their approach is that although the number of teachers required to be trained will decline, there is actually a need to increase the number of teachers in shortage subjects like mathematics, science and handicrafts.

Evidence from a recent survey of teacher unemployment prospects by the National Union of Teachers shows that demand for mathematics and science teachers is not as high as might be first thought.

Part of this is due to the lack of demand for mathematics and science graduates from industry, but this could well change if the economy improves. In the case of women science teachers and technical craft teachers there are still too few teachers chasing jobs, a situation which could get worse if places in colleges were lost.

The wide discrepancies between recruitment to different departments is illustrated in the two tables of college recruitment to five separate subjects taken from figures prepared by the DES.

The figures show that even when two colleges are merged, the combined recruitment to mathematics rarely rises above 20 in any year while figures in the sciences often stay under 10 students.

The comparative figures for English and history recruitment to the same institutions show that in many cases figures of above 50, and in the case of the combined Hereford and Shenstone intake, above 100 are reached.

Religious education recruitment tends to vary from one institution to another.

Assuming that these figures will be used to form some base for rationalization, the DES is obviously hoping that some colleges will offer to close their departments to strengthen others. The only hints given in consultations with education unions has been that rationalization could favour concentrating some departments in polytechnic members, where there are already good mathematics and science departments.

Since however the majority of the 58,500 public sector places are to be provided in colleges of higher education this may not necessarily be the best answer.

The question is where the axe should fall and who should take the decisions. For the colleges it is a matter of the year of uncomfortable decisions.

David Hencke

Department of Education and Science

BASIC FURTHER EDUCATION STATISTICS

JULY 1975

England and Wales

	1967	1972	1973
NUMBER OF ESTABLISHMENTS			
Major			
polytechnics/regional colleges (1)	25	30	30
other maintained and direct grant	713	595	579
evening institutes	7,439	6,361	6,812
independent recognised as efficient	91	100	99
STUDENTS (thousands)			
Major establishments			
full-time and sandwich			
male	138.0	180.5	176.6
female	83.9	123.6	127.5
total	221.8	304.1	304.1
of which			
from overseas	14.9	21.6	26.5
part-time day			
male	571.1	505.3	486.9
female	169.7	204.5	213.3
total	740.8	709.8	700.2
of which			
day release	640.0	564.9	543.1
evening only			
male	385.3	331.6	325.1
female	425.9	435.4	458.1
total	811.3	767.0	783.3
evening institutes			
male	484.1	526.1	555.8
female	935.7	1,064.0	1,174.5
total	1,419.8	1,590.1	1,730.1
all grant-aided establishments			
male	1,578.5	1,543.5	1,544.2
female	1,615.2	1,827.5	1,975.5
total	3,193.7	3,371.0	3,517.7
of which			
polytechnics	—	159.3	156.7
Independent establishments	17.2	17.5	16.7
Responsible Bodies for adult education (2)	240.3	271.1	267.3
AGE OF STUDENTS AT GRANT-AIDED ESTABLISHMENTS (thousands)			
Major establishments			
under 18	475.8	431.0	388.4
18-20	466.2	422.6	417.9
21 and over	832.0	927.1	981.3
evening institutes			
under 18	259.0	267.2	275.5
18-20	123.5	90.1	101.5
21 and over	1,037.2	1,232.7	1,353.1
STUDENTS STUDYING FOR RECOGNISED QUALIFICATIONS AT GRANT-AIDED ESTABLISHMENTS (3) (thousands)	1967	1972	1973
Advanced courses :			
postgraduate and higher degree	7.4	10.4	10.6
CNAA first degree	10.2	31.3	37.2
university first degree	13.8	11.7	8.6
HND	14.0	19.6	18.6
HNC	46.2	35.4	34.2
other advanced	89.3	94.9	99.1
all advanced	180.9	203.5	208.3
Non-advanced courses :			
OND	11.8	19.8	20.5
ONC	59.7	51.3	52.3
City and Guilds	507.2	466.8	430.4
GCE	230.5	268.6	262.8
other non-advanced	136.6	122.8	123.1
all non-advanced	945.7	929.6	895.1
QUALIFICATIONS OBTAINED (thousands)			
Advanced courses :			
London University			
first degree (4) (5)	5.0	3.4	n.a.
CNAA first degree(6)	0.6	5.1	6.1
HND	3.1	6.5	6.2
HNC	14.2	12.0	11.3
Non-advanced courses :			
OND	2.9	5.9	5.9
ONC	16.2	14.6	13.7
City and Guilds (4) (6)	215.6	255.9	n.a.
FULL-TIME TEACHERS (thousands), (7)			
Major			
polytechnics/regional colleges (1)	5.6	10.8	13.0
other maintained and direct grant	39.0	44.6	45.7
evening institutes	0.3	0.4	0.5
EXPENDITURE (£ million) (8)			
current	189.3	334.2	368.7
capital	42.2	54.1	n.a.
total	211.5	388.3	n.a.

(1) Regional Colleges in 1967. (2) Universities, Workers Educational Association and Welsh National Council of YMCA. (3) Figures are provisional. (4) In general these students are at major establishments. (5) Academic years 1967/68, 1972-73. (6) Internal and external degrees obtained at non-university institutions. (7) Full figures, separate detail for England and Wales not available. (8) At 31 March, excluding part-time teachers. (9) Public Authorities only: financial years 1967-68, 1972-73.

Copies of these statistics can be obtained from the Department of Education and Science, Statistics Branch, Elizabeth House, 01-928 9222 ext. 2776.

Additional information on further education statistics is contained in *Statistics of Education Volume 3, Further Education 1973*.

Other volumes in the *Statistics of Education* series are:
Volume 1, Schools
Volume 2, School leavers CSE and GCE
Volume 4, Teachers
Volume 5, Finance and Awards
Volume 6, Universities
also *Education Statistics for the United Kingdom*.

Copies of these priced publications are obtainable from HMSO Government Bookshops.

David Walker interviews John Rex, professor of sociology at Warwick University

A professional iconoclast who seeks the middle way

The tough-minded fellows of certain Oxbridge colleges who fill the columns of *Encounter* would have a field day. For the case of John Rex seems to be a choice example of a former adherent of the New Left getting his comeuppance when students and others twist his radicalism to hit him in the professor's *most vulnerable spot*—the university.

The trouble with this Melvin Lasky day dream is that the subject, one of British sociology's *enfants terribles*, is not someone to sit still while the "Noddy Marxists" and student revolutionaries pile the faggots around his professorial chair.

Just because the high point of your political life, as for John Rex, was the Aldermaston marches and the editorial board of *Universities and Left Review* in the days when it shone with names like Raymond Williams, Edward Thompson, Stuart Hall, Doris Lessing and Ken Alexander does not mean you are a burnt out case in the 1970s.

It does not rule out striving towards a fresh philosophy of education that defends intellectual standards and the academic ideal without surrendering to authoritarianism or the worship of obscurantist tradition.

Professor Rex seeks a third way, steering between the commercial debasement of cultural standards visible in the United States and Canada and communist totalitarianism. The path has to avoid every kind of bourgeois philistinism that would close universities down because they are critical and not "useful", and left wing student anarchy that would destroy them from inside.

Recently returned from a 13 month sojourn on a visiting professorship in Canada, Professor Rex has come back to the sociology department he did much to create at Warwick University. But he has returned deeply disturbed by the state of students, general teaching and research standards and particularly by the crisis in his own subject, sociology.

Yet a string of highly paid job offers in America notwithstanding, he still finds Britain offers the most congenial academic environment in the world. It needs protecting but to do this without the assistance of backwoods conservatives or retreat to the pampered quads of Oxbridge he needs allies.

These concerns come together in dissatisfaction at the encroachment of Marxism. He says that in sociology "mindless Marxism" substitutes all too frequently for rigorous thinking. Among students it is a kind of drug that makes them outbid each other at perpetual mass meetings for the most extreme action.

Professor Rex, a Weberian and professional iconoclast, says bluntly that students have become the biggest single threat to academic freedom in Britain.

His academic credo is simple. Lecturing and teaching, the life of the mind within the university's walls, must go on despite the Vietnam war, despite even—as an issue dear to his lifelong concerns—racial intolerance in the cities.

He would defend the virtues of dispassionate academic debate and the ordered quest for understanding against his colleagues and friends in the black liberation movements. Their intransigent rejection of the academic dogma made him leave the Institute of Race Relations recently when it was taken over by "activists".

It is not students alone within the university who have been contaminated by spurious Marxist theories. "The major part of a chairman of department's time is taken up with politics—with a small 'p'. In fact the syllabuses can be academically sound, but in the arrangements positions are taken up and political attitudes struck which people rationalize in terms of theories—which drag down the level of theory and so properly understood.

"Paradoxically good theory is what we need. Since I came to Britain from South Africa I have repeatedly said that British sociology needed theory and general explanations. Instead, that theoretical vacuum has been filled by crude Marxism."

Yet, a further paradox, there is a great need for better sociology—the kind that would include Marxism properly taught. This belief distinguishes Professor Rex from the conservatives of the Kingsley Amis-Black Paper axis who suspect sociology as the seed bed of revolt, or even from other social scientists, like Professor John Vaizey, for whom sociology has failed to be the same mind-expanding training as economics.

Professor John Rex.

Professor Rex says: "One of the worst things that could happen would be the loss of sociology. Britain at this stage in its history needs good sociology in order to assess itself. Iconoclasm is important because we have so many tatty idols." Among such idols are various monuments to "progressive education", perhaps even comprehensive schools.

At this point the knowing young men of the Left and the elder sages of the Right will no doubt say: Here is simply age bringing with it Conservatism.

But they would be wrong about John Rex, for his radicalism in his chosen field of study of race relations is unadmired, and his political disaffection from the Wilsonian credo of the present Government is complete. The same energy that made him an activist in the 1950s in *organizing platforms* for African independence leaders like Mboya or Nkomo is undiminished if less focused.

The same anger engendered by his contemporary at Rhodes University in South Africa—Ian Smith—makes him say: "The key to the history of our age is the ending of the colonial epoch. I used to wish that my *Nunc Dimittis* would be sung and I would kneel down and die the moment after Nelson Mandela walked down the steps of the Parliament building in Pretoria as the first black Prime Minister of South Africa."

What the knowing young men and the sages lack is something Professor Rex shares with some but by no means all of his fellow sociologists—a self searching candour. Of course, sociologists who claim to unravel the mystery of society ought to have nothing up their sleeves, but the doctrine of professionally clean hands often leads them to a meticulous and possibly destructive examination of their own lives and careers.

The great German sociologist Max Weber stands as an object lesson to all sociologists; for a number of years in the middle part of his career he was struck by an *intellectual anguish that completely* immobilized him. Modern sociologists make do with less dramatic gestures but they still face Weber's dilemma: do they stand apart from society or do they get politically involved; do they "theorize within the sound of gunfire"?

Professor Rex, a British Weberian, has escaped the existential anguish, but like Weber is seeking a special theory of tradition. He wants an authentic defence of the academic idea that keeps its faith with radicalism and the need for change.

An exponent in his time of the need for expanding the universities, *Professor Rex now harks back to a* former ideal. For him the 10 years he spent in university teaching between 1955 and 1965 were his happiest. They coincide with his time at Leeds and Birmingham Universities.

The heart of the idea is student-teacher contact. For him it was a particular sort of intellectual liveliness mingled with amicability and civilized political involvement that would carry an argument between lecturer and his students over from the classroom into the student union bar and common rooms. His profound regret is that the modern student temper forbids this sort of contact.

Nostalgia for a world of innocence before 1968? Professor Rex admits there is a danger of middle-aged pessimism, but adds: "Part of the social scientist's job is telling students they live in a world where there are constraints on action, where life is going to be reasonably nasty."

Can he escape academic passivity? "You can fight abuses but it is time consuming as far as the subject goes. I want to go on writing not an anti-Marxist sociology but an exploration of the sociological tradition.

"The problem for sociology is raising the standards of the people in it, giving them more time to become better sociologists. The subject did get diluted in its great expansion. Part of the blame attaches to the intrusion of men from Oxford with their PPE degrees, schooled in political theory."

Yet, a critique of Marxism, defence of standards, academic freedom, the exploration of tradition, all round a bill like the ancient immobilized him. Modern sociologists make do with less dramatic gestures but they still face Weber's dilemma: do they stand apart from society or do they get politically involved; do they "theorize within the sound of gunfire"?

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Yet, a critique of Marxism, defence of standards, academic freedom, the exploration of tradition, all round a bill like the ancient

Laurie Sapper, general secretary of the AUT, reviews the last two years' salary negotiations

Academic salaries: a personal view

In 25 years of negotiating in the public sector I must confess that I have never encountered the kind of topsy turvy situation involving ministers and government departments as has occurred in the past two years, spent in almost continuous negotiations on university teachers' pay.

We have seen in this period a Secretary of State for Education publicly overturning a publicly announced decision of the Secretary of State for Employment within a period of 18 days (which I shall elaborate upon in a moment); a government minister, the proponent of what has been termed the "moderate anti-militant" stance in industrial relations, sparking a conservative university teaching profession into outraged militancy; and a situation in pay negotiations whereby if an amicable agreement had been arrived at between the Department of Education and Science and the universities, academic staff would have been getting hundreds of pounds less than they did achieve by effecting a breakdown in negotiations and going to arbitration.

To see what happened, let us begin at the beginning.

In early 1974, at the time of the three day week, the miners' strike and the Conservative Government's stage III statutory pay policy, the *Association of University Teachers* in common with teachers and other groups, settled its 1974 salaries under the permissible limits.

Whether or not it was wise to make this settlement at such an early stage (and, all in all, including thresholds, the total value amounted to about an 11 per cent increase spread over the whole profession) is a matter that can be argued about in hindsight.

If the universities had, in fact, waited until September or October 1974, the settlement might not have been much higher since the "going rate" at the time was of the order of 14-15 per cent and this might well have been the maximum which universities would have been able to achieve.

At the time of making the settlement, the AUT agreed with the University Authorities Panel (with whom AUT has to reach agreement on all pay matters before going to the DES) that a comprehensive review of university teachers' pay would take place as soon as legal restrictions permitted.

The rightness of this decision can be seen from the fact that on May 24 the Secretary of State for Education and Science announced the setting up of the Houghton review body to look especially at the pay of non-university teachers.

This decision was in flat contradiction to the statement made by the Secretary of State for Employment only 18 days previously when he said "I have had to say 'NO' *to a number of representations* from those who have asked for a full-scale review, and this includes the teachers and the postmen, because I have not been able to say that these are truly exceptional circumstances, and general reviews in these cases would run the risk of reopening the whole pay round".

(When questioned about this political turnabout the DES gave no explanation, and I suspect that between May 6 and May 24 there had been intense private Parliamentary pressure by teachers' MPs and probably also by the TUC.)

University teachers were deliberately excluded from this review.

In July, 1974, at a meeting with University Authorities Panel, at which the University Grants Committee as confidential advisers to the Government were present, the AUT asked for the review to begin. This review would have meant a revision of the October, 1974, settlement in the same way that the teachers were due to have their Stage III April, 1974, settlement revised.

A few days later the social contract Mark I replaced the statutory controls, and when proposals went to the DES, in a harsh interpretation of the 12-months rule, the Secretary of State refused to allow the October, 1974, figures to be revised.

The position was exacerbated when the Houghton report was published granting extensive major increases to non-university teachers. In spite of all the arguments advanced and the precedents quoted, the Department of Education and Science refused to move on the issue although, after long negotiations, including a meeting with the Secretary of State, the following two-part offer was extracted from the minister:

- Part I—increases to be paid in stages between October 1, 1975, and October 1, 1976 (although to be deemed appropriate to October, 1974), to determine what university teachers' pay should be in the light of "Houghton comparability" in comparison with the scales paid in polytechnics.
- Part II—a cost-of-living increase for the year October 1, 1974, to October 1, 1975, to be determined in the light of pay policy considerations relevant at the time".

The University Authorities Panel and the AUT, being faced with no alternative, began to negotiate on part I but could not reach agreement with the DES.

(It is interesting to note how far this situation has been misunderstood, even by informed sources such as *The THES*. For example, only three weeks ago in an article it was stated that if instead of going to arbitration the AUT and the University Authorities Panel had reached a quick agreement with the DES on both part I and part II earlier in the year, the universities would have been in a different position. This, of course, completely ignores the terms of the White Paper *The Attack on Inflation* which would have cancelled out such a deliberately agreement and substituted the £312 White Paper limit on the total settlement.)

The case, therefore, went to the Arbitration Tribunal but not before university teachers on May 6 engaged in a whole series of militant actions, including the cancellation of lectures, one-day stoppages and, in Manchester, a 1,000 strong protest march.

The Arbitration Tribunal awarded part I scales well above the DES final offer. Negotiations began immediately for the cost-of-living increase (part II) for the year 1974/75, but no reply was made to the universities' representations for seven weeks until the day the new White Paper was issued.

The increase offered was in line with the new £6 a week pay limit, even though the DES had put a provisional figure of 20 per cent on this increase when mentioning part II in its arguments before the Arbitration Tribunal.

Without having access to Cabinet papers it is difficult to ascertain the reasons why there was a seven week delay in replying and why the terms of the White Paper, although letting the arbitration increase through, said that any other agreements made with a starting date later than September 1 would have to be limited to £312 per annum.

I suspect that at this stage there were certain elements in Whitehall—not necessarily in the DES—who said that if university teachers had received their cost-of-living increase in full, then the pay of university teachers would have equalled their counterparts in the Civil Service.

During this period the AUT and the University Authorities Panel, foreseeing that restrictions were on the way, did make several proposals to try to safeguard as much of the cost-of-living increase as possible, but these efforts were to no avail.

There was thus created a double barrier against university teachers. First was the delay in allowing an agreement to be reached, and secondly, if an equitable agreement had been forced, then it would have been cancelled by the actual terms of the White Paper.

It is understood that the new Secretary of State did attempt in governmental circles to obtain authority to effect a compromise settlement which would have been satisfactory to us, but the pay committee of the Cabinet, advised by its civil servants, did not budge.

Hindsight is a precise science and we can now say that in a sense the AUT was in a Catch 22 situation whatever action it took. If, for example, as has already been mentioned, the October 1974 settlement had been made later, we could well have been in the same position as some university technicians. Those who a year ago had equivalent salary levels to some lecturers, now find themselves £500 to £600 behind. Again, if we had made agreements instead of going to arbitration we would have found those agreements nullified by the White Paper.

This situation now shows that by our traditional comparisons, lecturers are something like £800-£1,200 below the Principal Scientific Officer and Administrative Principal in the Civil Service; that the comparison drawn by the Civil Service Department between the Senior Principal Scientific Officer in the Civil Service and our senior lecturer/reader and the comparison drawn between the Deputy Chief and Chief Scientific Officers and our professors has now been made a mockery of and that we have a long haul ahead of us.

The conclusions that university teachers must draw is that negotiators as detailed and documented arguments in negotiations may be, and however just and equitable the cause, the real issue is that negotiations are also about power, political pressure and public support and it is to these areas that university teachers must increasingly turn their attention.

Academic publishing costs show no signs of falling, as Peter Curwen reports

The presses roll on—expensively

In recent months much has been written about the difficulties of producing academic books at economic prices. However an real attempt has yet been made either to widen the analysis by incorporating the non-manufacturing side of an academic publisher's operations; to assess the extent to which prices have risen in real terms (allowing for the effects of inflation) over the past decade; or to examine book production cost breakdowns during more recent years in order to explain price trends.

Average price indices covering all academic books, whether text books or monographs, are published each August in the Library Association Journal. These date back to 1964 and are based upon the entries in the British National Bibliography.

The price index covering all adult nonfiction shows a doubling of average price between 1964 and 1970, very little change between 1971 and 1974, and a sharp upsurge in 1974/5. Unfortunately this does not tally with book-buying experience and further research has indicated considerable bias in this index.

During the period pre-1970 only very expensive books rose in price. Thus, although this caused the average index to rise appreciably, the price of a standard textbook remained static, and hence, once inflation is allowed for, actually became cheaper in real terms.

The apparent slight fall in average price during the early 1970s is largely accounted for by the vast upsurge in cheap paperback publishing as exemplified by the output of the academic division of Penguin Books Ltd. The price of the standard textbook, however, rose appreciably and it is a fair approximation to state that any textbook selling for £1 in 1971 would currently sell for £2 in an unchanged format.

During the equivalent period the Retail Price Index rose by approximately 50 per cent, with the result that most academic books are currently half as expensive again in real terms as they were in 1971. Although the complete 1975 figures are as yet unavailable there can be little doubt that book prices are keeping ahead of the price index.

The reasons for the sharp rise in book prices can be readily identified if one examines the changes in cost breakdowns which have taken place between 1971 and 1975.

The figures below are taken from the costings of published books, and are expressed as percentages of total production costs.

It can be seen from the table that two components of total production cost, namely paper and printing, rose particularly fast between 1971 and 1975.

The overall increase appears to be of the order of 70 per cent, but this is in practice something of an underestimate of the actual change in unit cost during this period. In the first place, the figures given in the first example disguise a deterioration in the quality of paper being used, an increasingly common ploy these days to keep down costs. The cost of specific types of paper has with few exceptions doubled between 1971 and 1975.

Also, the costings are based upon unchanged production runs, although in practice a publisher who typically produced a monograph run of 2,000 in 1971 is currently producing runs of no more than 1,500, and one who typically produced a textbook run of 4,000 in paperback in 1971 is currently producing runs of no more than 3,500.

Clearly, any reduction in the average production run has the effect of raising unit production cost more rapidly than is suggested by the figures shown above.

When one takes account of these and other factors it becomes clear that the unit production cost of an academic book has risen on average by at least 85 per cent since 1971, and quite possibly by 100 per cent. Now, there is a direct link between unit production cost and price.

Most academic books are sold by booksellers at a price fixed by the publisher. The publisher sells to the retailer at a discount off the marked price, amounting, say, to 33 per cent. This then leaves the publisher's turnover equal to 67 per cent of retail price.

The publisher also has to pay an author's royalty which averages out, say, to 10 per cent of retail price. The publisher's overheads work out, say, to 40 per cent of his turnover, which is thus equal to 27 per cent of retail price. Finally, the publisher desires a profit, say, of 12 per cent of his turnover, equivalent to a profit of 8 per cent of retail price.

All of the above costs total up to 78 per cent of retail price which then leaves 22 per cent of retail price to cover production costs. The relationship between retail price and unit production cost in this example is therefore 4.5 to 1.

Although the above ratio may vary from publisher to publisher it can be seen that unit production cost goes up the retail price goes up in proportion. Hence if unit production cost approximately doubled between 1971 and 1975 then this accounts for the doubling of book prices during the same period.

Unfortunately, since book production costs are continuing to escalate, there seems little prospect for a slowdown in the inflation of book prices.

In these circumstances the day of the 2p a page paperback edition of a textbook cannot be too far removed, nor the disappearance of monographs selling at below £10.

This article is based on a research project undertaken by the author, who is a junior lecturer in economics at Sheffield Polytechnic, with the assistance of Sydney Josephs (publishing director) and Shaie Selzer of Macmillan's higher education division.

Costs of book production

	Print run of 2,000 hardback, complicated setting		percentage increase	Print run of 500 hardback, 4,000 paperback, complicated setting		increase
	1971 per cent	1975 per cent	which which 1975/71	1971 per cent	1975 per cent	percentage 1975/71
Composition	66.50	67.75	95	53.25	47.25	50
Printing	12.75	13.00	75	14.25	18.00	114
Paper	6.00	6.25	76	13.50	17.75	118
Cover	7.00	7.25	14	5.50	3.50	6
Binding	9.75	9.75	74	13.50	13.50	73
Total	100	100	72	100	100	69

Requiem for university connexion

It could be argued that this book has come too late, that if its account of the forging over many years of links between university institutions, and teacher-training colleges had appeared three or four years ago the transfer of the colleges from the autonomous to the public sector might not have happened, or at least not on the scale that it has.

On the other hand one could plausibly contend that its record of repeated university reluctance and college ambivalence offers ample evidence that the Government's decision in 1972 to effect this transfer was fully justified.

The book is the outcome of a study financed by the Social Science Research Council during 1970-73. It starts from the appointment in 1923 of a departmental committee to review the training of teachers for public elementary schools, but gives two pages to events from 1890, when universities and university colleges first became involved in the training of teachers.

This introduction could well have been longer, including not only the establishment of university day training colleges at least the persistent efforts of HMI, supported by Morant, to prevent training colleges students from over-extending themselves by attempting to a two or three-year course to study concurrently for a teacher's certificate and a university degree.

That struggle culminated in 1911 in the four-year university course for intending teachers, which was to alter fundamentally the relationship between universities and training colleges.

Basically, it was about the exercise of power in teacher preparation, of academic studies and professional training. It was privately, in the 1923-25 departmental committee, where the dominant university status, but also for university control might impose over-academic curricula; and this fear was shared by the L.e.a.s and the teachers' associations.

The institutes of education did much to still, if not resolve, such apprehensions. As they developed, often under sound and enthusiastic leadership", say the authors of this book, "most university people in the period 1950-64 were increasingly willing to leave things in their hands".

But below the surface strains persisted. One cause is acutely observed in the chapter entitled "The Institute Concept: 1945-64": "Institutes of education can be thought of either as organizations for providing higher education . . . for intending teachers, in association with universities; or as an arrangement for securing a supply . . . of duly qualified teachers in which the producers—the universities and the colleges—are associated with the consumers, the L.e.a.s and the other providers of schools. The first concept . . . universities can understand . . . the second concept they found it much more difficult to take.

"Neither the colleges nor the universities went much out of their way to welcome, or find a means of cooperating with, the L.e.a.s or practising teachers."

Was this a main cause of the widespread criticism of the colleges and institutes which occurred in the late 1960s, and which led to three official investigations, and ultimately to the Government's decision to place our the institutes' work as Area Training Organizations?

The authors of this book almost imply that it was. But, like many other matters they discuss, it was much more complicated than that.

Harold Dent

It is Dent, late formerly professor of education at the University of Leeds.

Franglais? Stranglais! But MidAtlantic OK

An old debate grumbles on. The language of Racine, Voltaire and Hugo is under siege and the barbarians of the English-speaking world are camping at Gaul's gates.

The *franglais* fracas continues to provoke chauvinist Frenchmen—connoisseurs to a man of the mot juste—who no longer react with sang-froid to the manoeuvres of Anglo-Saxon publicists and agents provocateurs of all genres.

Two years ago, Professor Etiemble brought out an expanded edition of his celebrated attack on English and American intrusions and the *Office national du vocabulaire* is, at this very moment in time, *dans la situation conjoncturelle*), preparing further lists of words to be forbidden to civil servants.

For some time *le container* has been a *conteneur* and the *câbleman* has been *câbliste*. Even outside his labours only by consenting to become a *câbliste*. *Bulletin éclair* has not replaced *un flash* on the nation's telescreens, though it was for other reasons that the ORTF was disbanded.

The French purist has much to fear, for his language is under almost as much pressure from abroad as our pound. A few samples will perhaps give some idea of the problem confronting him and his *Haut comité pour la défense de la langue française*.

"OK; wait and see", dit la star à son manager. Elle hésita entre son blue-jean avec sexy tee-shirt et son simple string dont le stylisé était super-smart. Cette first-lady du show-biz adorait ses fans et dans le no man's land stressant du music-hall elle voulait faire knock-out.

Elle aimait un sex man membre d'un groupe pop qui chantait des folk-songs. Dans le moment conjoncturel il était dans la kitchinette du building où ils passaient le week-end. C'était le relax qui re-énergisait leur stock de glamour. Pour lui, un cocktail en smoking; pour elle, les sounds de la hit-parade au pick-up. Après, un steack ou un snack, et puis un match de football du un steeple-chase ou même une rallye de nuits. Et partout des reporters et des caméramans qui voulaient les shooter.

Stripteaseuses, le lock-out, rugbymans, le vanity-case, speakerines, le despatching turk on every carled French llp. Much is made of le leadership, le planning and le Black Power; and many un drink on the rocks is consumed—after the obligatory shake-hand—in the busy whirl of le high-life.

Open un best-seller and you will discover that le big boss des banques dans le cockpit of un jeep hard-top stoppe fundicash per son branch-cost". It would even be possible to say that what Jesus did on the Lake of Galilee was to practise a spot of "offshore footing".

It really is quite appalling and one's sympathies go out to M. Etiemble and the brave *Office national*. However, anyone who is au fait with the English status quo knows that here it's a different ballgame.

Hopefully, finding the mot juste is still a matter of savoir faire for a know-how as they say over there; non-chalance is not a riposte. Englishmen are likely to greet the sad franais language does not cause a brouhaha, for English has its own cachet.

It would be an awful faux pas to imagine that it was chic to speak anything but our well-defined standard English. It is high time the French found a modus vivendi which grosso modo would put the wraps on it for them.

A similar sort of ad hoc feedback situation in Brussels needs to be brought to a point of détente. Big Brother might not have found it double-plus ungood, but Eurospaec is a de facto fait accompli. Our chaps over there talk of eventual penuries (meaning possible shortages) and are concerned with the normalization of everything in sight.

A linguistician in situ and there fore able to keep himself au courant with the conjunctural situation might devise a modus operandi for the éclaircissement of situationally involved cutlets.

Naturlich, we English have completely avoided being bilted language-wise. The BBC might *sy* "entente cordiale", but it says it in inverted commas with the same plummy voice it uses for Lieutenant Colonel. Of course, the linguistically minded observer notes the importation of prole vocabulary ("diabolical liberty", "my executive", "sod off!", etc) but welcomes this as a transfusion of new life.

But we have nothing to fear from the foreigner! The youth of this great country has got up off its ass and is rising splendidly to the challenge. Indeed the ongoing youth-style gives us cause for nothing but great national pride: it is like a plough horse dragging itself out of the bullshit.

I mean, our young people are, at this moment of time, hassling out this problem with all the wisdom of their forebears. The French will not overrun us and our great language will survive intact. It's Speakeasyville, man, but it's all as English as Cornflakes.

The new lago-groups will continue the tradition, authoring books and stuffing data into the giant maw of computers while they drink a can of beer and smoke whole packets of cigarettes. It's all very comforting. The where it's at is here and now: that's how it all hangs out.

The old guys may be smart, but they can't put the zingers on it for the English language. Jeeze, it's like racist to harass a split infinitive, and if Captain Kirk dares to boldly go, then he's a goer and we're right there with him.

Grammar and that are garbage and crap and what's final? All you gotta do is say it and say it confidential. That old puke about, verbs and stuff is all through, man, I said *thru*!

We reckon to go on right-talkin' in the sweet old-fashioned way and none of them god-damn Frogs is gonna louse it up for us. We've opened up a pretty good hole here and we're runnin' to the devil!

If you wanna make it with us, speaking Regina's English, wise up. Don't be dumb. Don't stay in your creep! Grab a piece of the limpid action. Let go that Latin tag. Phase out your French! Like speak *English*, baby! Don't blow it, man, it!

D. A. Coward

The author lectures in the department of French at the University of Leeds.

R. S. Glover discusses the activities and impact of the International Biological Programme

Ecology—the biggest challenge faced by natural science

There was a time when exploration of this earth and its living creatures was a passionate calling for single-minded eccentrics and lone scientist-adventurers like Columbus, Humboldt, Ross, Hooker and Banks.

Knowledge advanced by haphazard steps, depending on individual whims or the availability of private sponsors; the driving force was often competitive nationalism, sometimes going hand-in-hand with territorial acquisitiveness.

What used to be called exploration is now environmental science, and the dishonest study of nature is called by that grossly misused word, ecology. The phase of description is over and we must search for interpretation, understanding and prediction of the mechanics of natural processes.

Instead of the inspired eccentricity of gentleman adventurers, we call now for highly professional technical prowess and we shall look in vain for a twentieth century Darwin to sail Sunbark as unpaid naturalist on IIMS Beagle . . . on a scientific expedition round the world which lasted five years".

This evolution from natural historian to rude mechanical has been accompanied by the replacement of patrician by internationalism, etc, hailed by the inelegant growth of acronyms—UNESCO, FAO, WMO, WHO, SCOR, SCAR and, but for the overscrupulous sensibilities of the scientific establishment, there would have been by now a World Organization of Marine Biologists.

Some of these international organizations have become established bureaucracies, as firmly entrenched as the government department which they control. However, not all international science has its origin in formal inter-governmental negotiation.

From time to time, by a kind of international telepathy, scientists at their benches have identified a need, set up and operated a programme to meet it, and then disbanded. The International Geophysical Year (1957-1959) was one such, as was the International Indian Ocean Expedition (1960-1965).

A more recent, and much more ambitious, example is the International Biological Programme, which gestated in the minds of a handful of professional biologists for five years, came to life in 1964, and formally declared itself defunct in July 1974, although its Publications Office will continue until the end of 1976.

Like the IGY and the IIOE, its value will lie, not so much in its achievements during its formal existence, as in the seeds that germinate and live on. There are now active research programmes in many countries that would have had no chance of starting but for the powerful magnetism of a major international exercise: if the United States, USSR, United Kingdom, Germany, France and Japan are inside, who dare stay outside?

In the end nearly 100 countries participated, to varying degrees, in fundamental studies of the natural processes of organic production on the land, in fresh waters and the oceans, of the adaptability of changing conditions, concentrating on those topics which were likely to benefit from international collaboration and were urgent because of the rapid rate of environmental change throughout the world.

The success of the IBP will be judged largely on the so-called Syntheses, of which we are promised more than 30 volumes. The volume which introduces them* is a curious mixture of historical anecdotes, rather dull and formal statements of objectives, lists of participating countries, publications and committees, calendars of meetings and, even, a *Cambice della creature* from the Christmas card of a former chairman of the Planning Committee.

The volume concludes with a revised version of an earlier booklet giving international standards for units of measurement and symbols in environmental biology, with instructions to authors of IBP Synthesis volumes. Thus, if "a large" is historical record, plus a working guide for those now involved in writing up the results, and a source of reminiscence for those of us who were engaged in the early planning stages of IBP.

Certainly the most entertaining, and perhaps the most valuable, chapter deals with the origins of the programme; written by Professor C. H. Waddington, it is possibly the last published writing from this remarkable man who died in September of last year.

Without his perseverance and prescience, there would not have been an IBP, although the idea seems to have come first to Sir Rudolph Peters in a train between Cambridge and London after "an excellent dinner given to us by the Master of Caius".

Clearly, the first motive was to do for biology what the IGY did for geophysics, but it was not at all clear what the subject should be. At first the nucleic acids were suggested for the central theme, then human genetics, plant genetics, nature conservation; each protagonist putting forward the claims of his own speciality.

Only Waddington had the breadth of vision to look beyond his own subject; indeed he turned his back on it. What he had in mind was "something to do with the way solar energy is processed by the biological world into the complex molecules which man can use, as food or otherwise".

He did not win easily, however; indeed he found himself in the strange position for a geneticist, of being "almost the sole sponsor of the idea that ecology should be looked at as a matter of energy through-put and processing".

In Britain, what he described as "the dominant medico-physiological establishment" of the Royal Society responded to his advances with blank stares of incomprehension". He met even less enthusiasm in the United States where molecular biologists and microbial geneticists held the fort; "general ecology was not one of the strong points of American biology at that time".

At that time, according to Barton Worthington, the scientific director of IBP, ideas were beginning to circulate about the application of systems analysis in ecology and the development of mathematical models, designed to simulate the performance of the component parts of an ecosystem.

This makes strange reading just one year after the first International Congress of Ecology in the Hague, a meeting dominated to an extraordinary degree by Americans, where ecology seemed to be almost almost wholly a matter of production biology, energy flow, systems analysis and ecosystem simulation by mathematical modelling.

Why, then has there been such an explosive growth of ecosystem science during the past 10 years? The most likely explanation is that the electronic revolution has now produced the sensors and data loggers to measure and record the variability of nature, as well as the computers to tackle the highly complex problems of data processing and research calculations.

What part did IBP play in all this? At one time it seemed likely to miss the boat by concentrating on calories and energy flow to the exclusion of the numerous processes that affect the performance of ecosystems—genetics, physiology, biochemistry, population dynamics and behaviour, for example.

Nevertheless, I think the IBP did help to accelerate this process of revolution and maturation of ecology; I remember how the programme started sluggishly and without any serious participation from the United States. Then, suddenly and belatedly, the Americans arrived with their own programmes, ignoring much of the previous planning, and strongly oriented in the direction of ecosystem analysis.

There were many, and I was one, who viewed their late arrival with resentment; theirs was not an international programme but the American Biological Programme. However, we stifled our criticisms; from that moment the IBP was in business, whether the IBP had anything to do with it or not, ecology will never be the same again.

It does not matter whether the credit should go to Waddington or the Royal Society (which, after its early coolness, breathed life into the near-stillborn programme) or the typically last-minute arrival of the United States Cavalry, or to none of these but only to the natural evolution of science. What does matter is that nobody can pretend any longer that fragmented biological research constitutes ecology.

The problems of interpreting nature must be solved through integrated studies of the performance of ecosystems as animated entities and this can be achieved only through the planned coordination of scientists from many disciplines; climatology, physics, chemistry, geology, biology, physiology . . . . cemented by mathematics.

Of course, individual scientists, working on their own, have a part to play, largely by providing the theory, the methods and the technical tools for the big battalions which we now need for ecology. Those who bemoan the passing of elegant, but small, science fool only themselves; from now on, natural environmental research must be organized and multi-disciplined.

The days when it was a privilege to be allowed to study nature are gone, to be replaced by the social responsibility to do a thoroughly professional job of interpreting with a view to predicting. Unless this is realized, ecology will revert to dilettante eccentricity of little importance, unworthy of the financial backing of the taxpayer.

The central organization of IBP was run at a trivial cost (the average national contribution in the year of maximum effort was about half the salary of one scientist). Some countries did indeed inject modest funds for new programmes but, in the main, the IBP consisted of existing research projects, reoriented and re-labelled.

At the time this looked like fraudulent window-dressing, but it points to an important lesson to be learnt from the decade of the programme's existence. This is that although the new professional ecology will require some increases of man-power and financial support, what it needs, above all, is a redeployment of the impressive existing expertise to ensure that the systems complexity of the research effort matches the systematic complexity of nature.

It is, perhaps, the biggest challenge faced by natural science and it may prove to be the most important. It is not faced, environmental research will continue to trail ineffectively behind the problems of pollution, population, conservation, and supplies of food and other natural resources; instead of anticipating, predicting and providing solutions.

The author is director of the Institute for Marine Environmental Research, Plymouth.

Bottom samples are collected by grab as part of a programme of estuarine ecological research.

When greater responsibility does not mean greater freedom

Mike Salmon argues that the CNAA's new proposals on validation should be rejected

The Council for National Academic Awards' discussion paper, *Partnership in Validation*, circulated to polytechnics and other interested bodies in early autumn has provoked much discussion at institution level but little appraisal in the education media.

This is surprising in view of the fundamental issues which are raised by its apparently straightforward and cosy proposals. There is a need for a much more vigorous debate and constructive approach than is being allowed by the hasty discussion of the document and the timetable proposed for its implementation.

Of course, all academics would welcome a move towards greater freedom but this is undoubtedly not what is proposed in the CNAA's paper. The talk is of transference of responsibility to institution level, not of greater freedom for those actually teaching nor the students undertaking courses in polytechnics. Thus one should be wary of assuming that such transference would grant the freedom which teachers and students want.

Second, there is the question of whether an increase in institutional freedom is desirable along the lines proposed either for the long term health of the individual colleges, for education reform and innovation or, indeed and perhaps most fundamentally, in the national interest.

The council's paper does raise the basic issue facing the polytechnics at the planning level, namely the separation of the validation of its academic work from the guarantees of resources required to carry out the agreed programmes.

The CNAA subject boards are placed in a false position in the existing economic climate by demanding, rightly, certain standards in the quantity and quality of resources employed but having to accept assurances from polytechnics which both the college and the board concerned know cannot be guarantees. This is because the resource allocating function is controlled by the local authority and the Department of Education and Science. *Partnership in Validation* makes this position worse, for it relegates academic validation to the local level, whilst maintaining control of the purse strings outside the polytechnics.

Any move towards a greater control by colleges over their academic programme which does not include a reappraisal of the whole relationship between national and local "needs", a college's academic concept to meet that need and the resource implications of the decisions taken is but a sham of independence.

The Committee of Directors of Polytechnics, in a recent statement, issued a call for more rational planning of needs and of the academic direction to be taken involving both polytechnics and universities. It is difficult to see how such a proposal could lead to other than a unification of both academic and resource validation.

Perhaps this all sounds familiarly like a call for a University Grants Committee-type body for the public sector with, hopefully, a strengthening of that body's concern over academic matters. Within such a framework, "partnership in validation" and eventual "independent charters", for those who have an urge in that direction, could be meaningful.

If such a Polytechnic Grants Committee was to be formed it should endeavour not only to tackle satisfactorily its role as both a resource provider and an academic moderator; it should also maintain adequate local and community involvement, otherwise it would encourage a further concentration of full-time work in the polytechnics.

The current problem in polytechnics is that the easiest educational provision to make is for full-time 18-plus entrants. *Partnership in Validation* will reinforce that tendency to the neglect of other educational functions in the polytechnics.

Perhaps a Polytechnic Grants Committee could play its part in questioning the whole range of educational provision and then ensuring the direction of resources to meet the recognized needs.

At the level of the academic validation of degree courses, the CNAA has pioneered a method of course and academic development which is one of the major achievements in higher education in the last decade. As a result of the experience of validating polytechnic courses, one ventures to suggest that the universities own questioning of "what", "why" and "how" is much more serious and informed than previously.

Of course the polytechnics want more control over their own courses and do not wish to be subjected to the petty delays and quirks of prejudice displayed by a small number of the council's boards in their dealings with colleges.

It would be a pity if the impetus which the CNAA has given to degree level studies in the UK was to be diminished by the new proposals, but such may be the case.

It is difficult to see how internal validation of proposals can be academic in its operation, for usually the very people who would be validated are the only ones competent in the disciplines concerned within that institution.

External members could fulfil that function, but it can only be assumed that they would be small in number and could display even more idiosyncratic subject views than the worst CNAA board.

Of course it would be intolerable to give them a power of veto and so, one fears, the validating body would concentrate on organizational procedural and pedagogical issues not the development of the academic content.

In the long run, there is a need for greater partnership between the polytechnics, the CNAA and both local and central government, not just between the CNAA and the colleges.

The polytechnics are maturing rapidly and have every reason to be proud of their achievements. The CNAA mechanism has also much to commend it and deserves development, not diminution.

The establishment of a Polytechnic Grants Committee would allow the impetus for further development demanded by the polytechnics, extend CNAA methods into the validation of resources, and enforce the necessary control over the growth of higher education which both the DES and the local authorities rightly demand.

In the short run, one hopes that the CNAA's proposals will be firmly rejected and the limited question of reforming academic validation referred back to the CNAA. As this is such a limited issue, perhaps the answer lies within the CNAA boards and the relationship the CNAA develops, not with colleges but with departments and groups of staff offering courses.

As the staff group gains experience in validation procedure it should be one of the validation of peers and exchange of relevant experiences, not an inspection of competence.

The author is head of the department of applied economic studies at North East London Polytechnic.

The Times Higher Education Supplement (London) Room 541
National Press Building
Tel. 202 8306765 Washington D.C.

Politicians fiddle as City University burns

The crisis at the City University of New York becomes daily more Byzantine. As bankruptcy now beats at the doors of the vast institution, those in charge seem gripped by a paralysis of indecision. The full details of the $55m budget cut the university must take should have been settled weeks ago and CUNY should now be embarking on a long-term financial solution.

Instead, nothing definite has been agreed. A comprehensive plan for saving the university by a special task force was presented to Governor Hugh Carey of New York State a month ago, but up till last week its members had no idea whether their plan would be put into action or not.

The Governor has since appointed a member of New York City's Emergency Control Board to settle the affairs of the university.

The city's Board of Higher Education, the body nominally in control of CUNY, has meanwhile approved a plan for a four-week compulsory holiday, but when it is to be or how arranged is unclear.

The idea was first floated weeks ago by the Chancellor, Dr Robert Kibbee, and was vigorously opposed then. CUNY staff have now gone to court to prevent it being enforced.

Meanwhile, the chairman of the Board of Higher Education, Mr Alfred Giardino, has resigned. His two-year term was up, and he wanted to go back to his law practice, but Mayor Beame persuaded him to stay on indefinitely.

Since then, the mayor has been engaged in a public row with the board over the furlough proposal: he says this is only a one-time saving, and what he wants from the university is a plan that entails a permanent reduction in the annual budget.

In the end it is up to the Emergency Control Board to decide what to do about the university, and the decision really rests with the chairman of the board, Governor Carey.

The most likely outcome is still acceptance of the special task force report, involving more State control of and funds for the City University, but this needs a special law and the State legislature is now in recess.

The administration of the university meanwhile has become totally bewildered about what measures they are going to have to put into effect within the next few weeks.

Neither teachers nor students know whether they can expect a full semester this spring, whether all the university's colleges are going to remain or disappear in a merger, and whether the policy of free tuition and open admissions really is dead and buried.

Ban on religious services goes to Supreme Court

The Supreme Court is being asked to decide whether a university's ban on the celebration of religious services on campus violates the freedom of religion guaranteed in the American Constitution.

The University of Delaware is appealing against a decision by the Delaware Supreme Court that the Roman Catholic priest who celebrates Mass in a student centre should be allowed to continue to do so.

The university believes this infringes its own constitution which stipulates that it shall "never be managed or conducted in the interest of any Party, sect or denomination."

The dispute began two years ago. A local priest without asking permission held a service in a student centre in September, 1973. He was told by the university that this was not allowed.

The following week the student centre was locked and the priest held Mass outside. The Bishop of Wilmington in Delaware, supported the priest, and went to court to stop the university interfering in the freedom of religion.

The issue is fundamental to the principles of separation of Church and State, laid down in the first amendment of the Constitution. The university, as an organ of the State, is bound by State law which, according to the Supreme Court, must "neither inhibit nor advance religion and must avoid excessive entanglement with religion."

Delaware interprets this to include organized religion on campus. The university argues that the Church has its own student centre just outside the campus and there is a Roman Catholic church 15 minutes' walk from the halls of residence.

Controversy over organized religion last came before the Supreme Court in the early 1960s, when it ruled that public prayers and morning assemblies in public (that is, maintained) schools were unconstitutional.

A case arose recently in Florida where a local school district was reminded it was illegal to organize school prayers. But the matter has not been tested at university level. Private universities, of course, are allowed to be as denominational as they please.

After the decision against the university by the Delaware Supreme Court, the university argued there were 1,410 public institutions of higher education in the United States with 7,127,644 students and there were some 300 religious denominations. If the Delaware court's decision was applied through the country, every college supported by public money would have to make facilities for worship for every denomination.

The Catholic Church will argue its case in a few days, and the nine justices of the court in Washington will then decide whether to hear the case or let the Delaware ruling stand.

Saints alive . . . by courtesy of computer

About 1,500 saints are being put on computer by two historians at Rutgers, the State University of New Jersey. They are preparing a survey of all saints between the 10th and 13th centuries.

Details are punched on computer cards and will be interrogated when the study is complete. Certain background early influences and basis for saintly reputation are known, such as the town, country or religious movement. Other details, more difficult to quantify, are also being recorded.

Among the historians have discovered is the decentralization in the 10th century: saints were selected for nobility or monasteries and were male; in the 12th century, saints included tradesmen, peasants and artisans; by the 13th century saints were women and caring for the sick became a chief qualification; in the next two centuries saints were ascetics and hermits; and after the Reformation saints were generally murdered in the defence of the Church.

Liberal arts and 'the lion's den'

Education in the liberal arts is a steadily diminishing part of higher education in the United States, and this decline is a grave loss for American society and culture as a whole. These are the conclusions of Professor Neil Rudenstine, a dean at Princeton University, in a survey of the future of the liberal arts.

The subject has become increasingly controversial. Most private liberal arts colleges are in danger of going bankrupt and more and more students are choosing vocational courses at a time when jobs are scarce.

There has also been a steady drop in numbers reading such subjects as modern languages, and yet at the same time high school leavers are going to universities with lower Scholastic Aptitude Test scores than ever before, and lecturers are complaining that students now cannot write English properly.

The debate has been sharpened by some forthright speaking recently by Mr T. H. Bell, the United States Commissioner for Education.

"The small private college that does not roll with the times will not survive", he said. "I feel that the college that devotes itself totally and unequivocally to the liberal arts today is just kidding itself. Today in education we must recognize that it is our duty to provide our students with saleable skills.

"To send young men and women into today's world armed only with Aristotle, Freud and Hemingway is like sending a lamb into the lion's den."

These remarks, reproduced in the current issue of the Princeton *Quarterly* magazine, by Professor Rudenstine, do no more than highlight an existing trend; more and more colleges are introducing work-study programmes or career planning for second-year students.

Since 1972 a New York university college has found that history, modern languages and mathematics have ceased to be among the top 10 subjects students choose for their main degree: they have been displaced by accounting, art and communications arts and sciences.

Professor Rudenstine says it is fair to assume there has been a decline in general arts knowledge, though this is hard to prove without reliable tests.

But many people now no longer consider liberal arts subjects as the "core" of an undergraduate course, but rather a "stimulating addition" to a different kind of curriculum. Courses are conceived now in relation to premedical, prelegal or other preprofessional studies.

The growth of professional studies in universities—law, medicine, education, architecture, engineering, public affairs, agriculture, and so on—and their demand for specialist training has left students little time for work in the humanities, languages and fundamental studies in the basic sciences and social sciences, Professor Rudenstine says.

Even professions that are traditionally based on the liberal arts—law, medicine or architecture—are establishing career-related courses.

"The result, too often, is that students feel compelled to take all that is offered so that they will run no risk of being at a disadvantage when they submit admission applications to graduate professional schools."

Liberal arts colleges should not be wholly committed to "pure" curricula, he believes. But it would be an "incalculable loss" if the number of great institutions devoted primarily to the liberal arts was greatly reduced in the next 25 years, or if their liberal curricula greatly altered to make room for more specialised study.

Judge halts Washington money threat to force desegregation

The Department of Health, Education and Welfare has been ordered not to go ahead with its moves to cut off an estimated $65m in aid to Maryland higher education (*THES*, January 2) after the State's attorney-general complained of "blackmail" by the department.

At a brief hearing of a civil suit filed by Maryland, the judge told the department that it was not to make any move until a full hearing on January 30.

Last month the department's Office of Civil Rights said it would cut off all Government money because Maryland had "consistently" failed to put into effect a plan for desegregation of public colleges and universities in the State.

Meanwhile, HEW is making a similar threat against a mid-west university for alleged sex discrimination. The department is expected in the next few days to take steps to end all current and future Government funds for the Southern Illinois University at Carbondale.

If it goes ahead, this would be the second time Washington has threatened a university because of sex discrimination. The other case, at the University of Texas at Austin, is still awaiting a hearing.

The Illinois case is a complicated dispute arising out of a complaint made four years ago by a former professor, Marisa Canut-Amoros, who maintained that as a full professor in the school of engineering and technology she was paid substantially less than her male counterparts, that she was denied summer employment because she was a woman, that she was not allowed to transfer departments after resigning from the school of engineering, and that she was unfairly refused permission to change the terms of her sabbatical leave.

The university has denied any discrimination on grounds of sex, and has been engaged in extensive correspondence with HEW's Office of Civil Rights. A portmanteau formula for settling the case was negotiated, providing for the reinstatement of Professor Canut-Amoros at the average salary of her male colleagues.

This seemingly sensible solution, however, was rejected by Professor Canut-Amoros, and after several rounds of angry exchanges the university's patience wore thin, the Office of Civil Rights decided there had been discrimination and the present impasse was reached. If Washington carries out its threat, the university stands to lose over $7m in Federal money.

Dr David Mathews.

Secretary hits at cost of grants administration

It costs universities so much time and money to administer the system of Government grants for students that many are reluctant to encourage students to apply for them, Mr David Mathews, Secretary of Health, Education and Welfare, recently told Congress. In the 1975 fiscal year, his department had $135m unclaimed funds for student loans.

Mr Mathews has been trying to introduce compensation for colleges and universities for the cost of administering Basic Educational Opportunity Grants. But last week Appropriations Committees in both the Senate and the House of Representatives rejected a proposal to spend $1,200,000 in repaying colleges.

This sum is roughly 10 per cent of the amount set aside to administer the grants—$11,500,000. It would have given colleges $2 for each of the 600,000 grants processed.

Major universities have frequently complained about the cost of administering loans. A recent survey by the National Association of Student Financial Aid Administrators estimated average costs at $30 per student.

Large State universities with a high proportion of students from poor backgrounds—those eligible for the maximum—have had to bear the greatest burden of the administrative cost.

They have been outraged by a regulation last autumn which stipulated that any college advertising a course leading to a particular career must provide every applicant with a full breakdown of the present positions and salaries of all former graduates of the course.

If the applicant is to receive any Federal student grant, one State university reckoned, this survey would cost it $80,000 a year. The Government regulation is intended to deter colleges making false claims for courses or false run courses and to expose pharmacist-training mechanics—but it would add greatly to the paperwork involved in running such courses.

Lebanon bails out AUB

The Lebanese Government has saved the American University of Beirut from bankruptcy by announcing an emergency loan of $8m (*THES*, December 5, 1975). This enabled the university to reopen on January 4 with 2,000 students—about half last year's total—and most of the teachers present.

Until the Government's announcement it looked as though the university, which has been in Beirut for more than 100 years, would have to close down for ever.

The civil war in Lebanon made life on the campus virtually impossible last term. The academic year has now been readjusted to run from the beginning of January until September.

The New York office of the university, which receives an annual grant of $4,500,000 from the United States Government, was hopeful that AUB would now weather the present crisis.

Record numbers for Saskatchewan

Student numbers at the University of Saskatchewan rose 8.5 per cent last year to a total of 11,250 degree students—500 more than in 1969-70, the previous record year. This was against the predictions of the university itself, which expected numbers to remain steady.

The university attributed the increase to the large number of students resuming their education after interrupting it for a time. There was also a strong demand for graduates in agriculture, engineering, commerce and education.

Migration out of the Canadian province of the 18 to 22-year-olds, which in the last seven years averaged 6 per cent, has now dropped to virtually zero.

Efforts to keep medical graduates in Saskatchewan were also more successful last year. Of the 55 students who graduated last May, 35 were still in the province by the end of last year—a record 64 per cent of the class compared with only 53 per cent in 1974 and 31 per cent in 1972.

English as it should be written

Special courses for students who cannot write English properly have been started by the University of South Carolina's English department.

The "writing lab" is open to any student in any field who has "mistakes of course, or takes the course and can't pass it", explains the chief mechanic, Dr Sue Hum. It would be greatly to the benefit of many students if more universities followed suit.

West Germany

Reforms restore powers to professors

by Günther Kloss

A compromise version of the *Hochschulrahmengesetz* (General Framework Law for Institutions of Higher Education) was approved shortly before Christmas by both Houses of the Federal Parliament (*THES* December 5, 1975).

All MPs of the CSU, the Bavarian branch of the Christian Democratic Opposition, voted against the Bill, arguing that the new method of allocating university places would put Bavarian applicants at a disadvantage.

A substantial number of MPs of the government SPD and FDP Parties also opposed the legislation. In their opinion it neglected too many of the original reform concepts.

Many provisions of the new legislation will take years to implement. Some *Länder*, for example, Hessen and Hamburg, will have to alter their own university Acts in order to conform to certain of its aspects.

The enhanced role of the professoriat in internal university decision-making is a case in point. As practised in Hessen and Hamburg university professors are only one of several decision-making groups, though they enjoy certain privileges. The Framework Law stipulates that professors must now have an absolute majority of votes over other academic and non-academic staff and students in all matters, and in questions of research and appointments a majority of the professorial group must agree before a decision is valid.

This provision, like many in the Act, was inserted on the instigation of the CDU/CSU Opposition and is a far cry from the bold and idealistic democratization and decision-sharing programme of six or seven years ago.

Today, in the cold light of an ever increasing numerus clausus and shrinking resources, the whole Bill had become an acute embarrassment to both Government and Opposition. It could not be dropped altogether, however, not only because of the promises of the past but also because some steps to remify the more and more diverging higher education system are still urgently required.

Both these reasons eventually enabled Government and Opposition, Federation and *Länder* governments, to agree on a relatively tame compromise Act which in its finally approved form appears to endeavour to solve some complicated and awkward technical problems rather than to develop comprehensive reforms.

Bavaria was another *Land* opposing the Bill. Like Hessen it argued that the new admissions criteria would put applicants from those *Länder* at a disadvantage. Hessen, for example, fears that there will be 1,000 fewer places for school-leavers from this *Land* alone.

The binding status system which the Bavarian Constitutional Court declared unconstitutional is going to be replaced by a *Länder* quota, based to two-thirds on the percentage of 18 and 21 year olds in a particular *Land* and to one-third on the percentage of applicants for a particular subject from that same *Land*.

Other parts of the law deal with new disciplinary procedures (a student may be sent down from a university and even barred from registering at another university when he prevents lectures from taking place by using or inciting the use of force), comprehensive universities (which now can be either cooperative or integrated), curriculum and course reform and the overdue imposition of fixed "normal" lengths of courses.

Senator Carrick

Rupert Myers of the University of NSW, commented: "Although staff retrenchments should not be necessary, it is clear that a substantial number of vacancies will have to remain unfilled during 1976."

Many people in tertiary education fear that the temptation for the present Government to implement long-term cutbacks will be great, particularly in research and building programmes.

This will be especially so because the Liberal and National Country Parties have a new overwhelming majority in both the House of Representatives and the Senate.

Other important decisions face Senator Carrick. His party's pledge "to examine closely" the proposed merger of the Universities and Advanced Education Commissions has been criticized by many who claim that an overview of the Australian tertiary system is much needed.

The Liberal and National Country Parties state "that much of the value of the two commissions has come from their distinctive natures".

Another election pledge that has to be evaluated is the introduction of a comprehensive tertiary loans system. Senator Carrick may consult with the Australian Union of Students, who campaigned vigorously for the Labour Party in the election. The new Minister will also be examining methods to implement election promises to provide wider opportunities for access to higher education and educational equality for women.

China

Writing on the wall for "open schooling"?

'Resources' row splits campuses

from David Bonavia

PEKING

Education is once again at the centre of China's ongoing debate about the country's political future.

On university campuses and in the courtyards of secondary schools, the green, yellow and pink posters which symbolize political expression in China have been going up in their scores. The language, as usual, is vague and ideological, but the issue is straightforward: should the available resources for higher education be spread around the country as evenly as possible, or should there be more concentration on key sectors to speed economic and technological progress?

The orthodox doctrine is to spread education around if the result is somewhat thin. But it is likely that the Armed Forces and Government Ministries have been putting pressure on the universities to turn out more graduates capable of pushing China towards the goal set by last January's National People's Congress: to be "an advanced socialist country" by the end of the century.

A more immediate goal, announced this autumn, concerns the faster mechanization of agriculture (to be "basically" completed by 1980), and this involves precisely the debate about whether to have *more* specialists (such as rural mechanics) or *better* specialists (such as designers).

It is axiomatic in China that "more" does not necessarily conflict with "better". The country's slogan for economic advance is a quotation from Mao: "More, faster, better and more economically". But the Chinese are not superhuman, after all.

In conventional terms, the Cultural Revolution wrought havoc with China's higher education. The universities and colleges were closed for four whole years, and it was only two years ago that Peking's two main universities graduated their first classes since the upheaval—a mere 7,000 students.

A consequence has been that the industrial and defence sectors have had to set up more of their own research institutes, in which the vicissitudes of politics are not allowed to interfere unduly with the essential work. Had they not done so, it is inconceivable that China could have launched three earth satellites this year.

This is not to deny the value of some modern Chinese concepts in education, fundamentally similar to many ideas being put forward in the West: to the effect that education should be relevant to the needs of society. It is mainly a problem of defining "needs".

One of the great models of higher education is the Chao Yang Agricultural College of Liaoning Province, which moved out into the countryside six years ago, and from which the graduates mostly return to work in rural communes—whether as accountants or mechanics, party secretaries, brigade leaders or even plain peasants.

This clearly makes sense in agriculture, but it may make less sense in other sectors. Students in scientific faculties may simply be wasting their time if they spend weeks or months of the year helping to solve relatively simple technical problems in factories.

This policy of general levelling, known as "open schooling", is at the root of the grievances which have been expressed by older and more traditional university teachers.

Republic of Ireland

Survey links language commitment with learning

from Peggy Barlow

DUBLIN

A significant correlation between access to higher education and ideological commitment to the revival of the Irish language is one of the key findings of a major report on public attitudes towards Irish, published here last week.

The report, based on a national survey and commissioned by the Government five years ago, places—not least because of this factor—a major emphasis on the use of the educational system to implement the constitutionally stated aim of reviving the Irish language.

But it also reveals that no more than about 4 per cent of the population at the moment use it as a normal, everyday language, and that its use in the public service rarely coincides with the actual ability of public servants (many of whom have had to pass qualifying examinations in the language) to speak it.

Analysis of the replies by respondents who declared themselves to be "highly committed" to the use of Irish, by social class of origin and level of education, shows a steady progression in favour of the language from those with no more than primary education up to those with at least some third level education—both manual and non-manual classes.

There are, however, striking differences as between the classes: at each level of education respondents of working-class origins are significantly more likely to be personally committed to the Irish than are the middle-class respondents.

This is ascribed, at least in part, to a belief of working class respondents who have achieved upward social mobility via the educational system that Irish—until 1973 an essential subject for terminal examination in second-level schools—was a factor which contributed to their success.

"There is", the report notes, "a clear linear relationship between class of origin, ability and personal commitment to use the language. The higher the status of origin the greater the ability and the greater the commitment to use Irish. This relationship, however, is due to an intervening relationship to education. The higher the status of origin the greater the level of education and as a consequence the higher the levels of ability and of use commitment."

This national pattern is, however, distinguished from the pattern in the Gaeltacht, or Irish-speaking areas, in which level of education is inversely related to a commitment to the revival policy.

This, the report suggests, is due to the fact that the actual educational level of the native Gaeltacht population is severely depressed: those Gaeltacht inhabitants with higher education tend to be those who have been born and educated outside the Gaeltacht, and who are working in managerial or executive positions in enterprises situated in the Gaeltacht, and who regard Irish unfavourably.

The Gaeltacht apart, therefore, the report argues, "what is central to the formation of attitudes towards Irish is level of education and mobility through the educational system, rather than socio-economic status or mobility per se."

The report says that there are substantial implications for teacher education, not least because of its disclosure that less than half of the teachers who currently teach Irish at second level claim to speak it as well as or better than English.

Committee on Irish Language Attitudes Research: Report. Stationery Office, Dublin. £2.00.

Italy

Engineers, architects hardest hit

Some 90 per cent of recent engineering and architecture graduates have not yet found work in their chosen profession, according to a recent statement by the National Association of Engineers and Architects to the Parliamentary Public Works Commission.

Israel

Universities expect to fare badly in budget allocations

from our correspondent

JERUSALEM

The battle of the Budget for 1976-77 has begun and the universities, like other sectors, are anxiously waiting to see what the new economic policy of severe retrenchment has in store for them.

They know that, in the present economic plight of the country, they cannot expect special consideration. Severe cuts are forecast in the social services—education in general, welfare, health, housing—and even in defence. With each Minister fighting an almost hopeless rearguard action for the budget of his department, there will be little sympathy for higher education in the Cabinet.

As for the public, its attitude to higher education is ambivalent. It is proud of its international reputation of its scientists and scholars; it is fully aware of the importance for the country of quality and it wants its sons and daughters to enjoy a university education.

But it looks askance at the lavish campuses built with a luxury that ill befits the economy of the country and which fills with envy those responsible for education at lower levels. It is critical of what it regards as the absurdly light workload of the academics and it questions the justification of the sabbatical year, generally taken abroad, with the hard currency expenditure it involves.

The politicians, while by and large sharing the views of the public, are beginning to turn to professors for expertise.

For example, a small committee headed by a professor of economics, and including several others, recommended the new economic policy adopted by the Government. One of these professors has been appointed adviser to the Minister of Finance, and he is responsible for the general lines of the Budget now under discussion. A professor of law has been appointed legal adviser to the Government, the highest legal post in the Ministry of Justice after the Minister himself. The Minister for Defence has at least two professors as his personal counsellors, while the majority of the ministries have senior scientific advisers.

Higher education took a 12 per cent cut in real terms in 1974-75 and one of 16 per cent in 1975-76. The universities will be thankful, if not happy, if the budget for 1976-77 proves no worse in real terms.

The Planning and Grants Committee of the Council for Higher Education, only in the second year of its existence, is being put to the severe test of securing for the universities a budget which, while perhaps not allowing much for development, will do no irreparable damage to standards of teaching and research.

Tight budgets will mean reductions in staff, academic as well as administrative and technical. The universities will be in little condition to absorb promising Umbrigant teachers and researchers or bright young Israelis returning from advanced studies abroad.

TIMES PAST
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Learning to love industry and save the country

By all accounts Mr Mulley is taking his responsibilities for science at least as seriously as his responsibilities for education which may give some comfort to those research councils waiting anxiously for next year's budgets.

He has just returned from a tour of the high-flux reactor at the Institut Laue-Langevin at Grenoble and *the Synchrocyclotron at the European Centre for Nuclear Research, Geneva.* Britain has a significant financial and scientific interest in both projects.

At home he has had serious things to say about the apparent unpopularity of science, mathematics and engineering among school children and undergraduates and the potential effect of this trend on manufacturing industry.

It must be said first that none of this is new and that similar fears have been voiced over a period of years by academics such as Lord Rowden, principal of the University of Manchester Institute of *Science and Technology*, and industrialists such as Lord Stokes. Nevertheless, it seems now commonly accepted that at least some part of our current economic malaise is the result of failure to persuade the best of our young people that industry can present a challenging and attractive career.

Mr Robert Sheldon, financial secretary to the Treasury, for example, quoted figures recently showing that the percentage of graduates entering industry had fallen from 24 per cent in 1966 to only 16 per cent in 1974. Mr Mulley speaking at the North of England Education Conference said that nothing less than a revolutionary change in the attitudes of students and teachers towards industry and *commerce was needed* to save Britain from economic disaster.

There are two separate points here. First, the need for all school children to study mathematics and science, taught by enthusiastic and competent teachers, to increase the general numeracy of the population *together with the need* for a certain proportion of children to study these subjects at a high level, *so on* to higher education, and eventually enter industry. Second, the need to persuade the non-technologists that a worthwhile career is to be had in industry and commerce. It *is perhaps* significant that a recent parliamentary answer shows clearly that applications for modern language studies have been in steady decline for a number of years. Even *in the technological* universities and the polytechnics, which have made a positive virtue out of courses with clear relevance to industry, modern language departments are seeing a worrying fall in recruitment.

These are separate battles. On the science, mathematics and engineering side it is clear the answer must lie in the schools. Authoritative estimates suggest there is indeed a shortage of science and mathematics teachers of the right calibre and provisional recruitment figures in colleges and departments of education do not give grounds for hope that this situation will improve soon. The situation is such that the Department of Education and Science solves the professional requirement for science teachers, in fact which still causes great heartsearching in organizations such as the Association for Science Education, by simply saying, however, to suggest that much of Britain's industrial weakness is caused by an acute shortage of scientists and engineers. A recent and unpublished survey carried out by the Confederation of British Industry *suggests that the supply of scientists* and technologists just about meets the industrial requirement. Industry's chief complaint seems to be not that the present crop of graduates are lacking in intellectual *abilities*, but that they fall short on social attributes—which some *industries have described as* "maturity". Such complaints are rarely leveled at sandwich students. There are a number of schemes planned or already operating designed to bring undergraduates and industry closer together both at undergraduate and post-graduate level, and there are a number of campaigns in schools aimed at the same objective coordinated by organizations such as the Standing Conference on School *Science and Technology*, and the DES organization, Project Engineers and Technologists for Tomorrow (PETT).

But the basic statistical framework in which all these projects are working is still vague. There are certainly empty places in science and technology in universities and polytechnics, but it is by no means certain that this is due more to students turning actively away from these subjects rather than a miscalculation of probable needs and therefore overprovision.

After all, as Mr Charles Carter pointed out to the North of England conference last week, to run *a society such as ours may need* only a comparatively small number of scientists and engineers used to the full and backed by a large number of technicians. But it is not either kind of technologist can be produced if the economy turns round and the recession lifts in the next three years. All of those questions need urgent study now.

The second problem involves both money and status. It is clear that *graduates in many areas can obtain* substantially higher salaries working for the public sector than they can in private industry. Industry is therefore probably right to complain that it is doubly deprived of the cream of talent. First by the call of academic research and second by the lure of public sector salaries.

Furthermore, areas such as accountancy and law have gained in popularity and attract large numbers of students. As Lord Bowden said in his address to the Manchester court, and again on television this week: "It appears that the bankruptcy of British industry will be accurately recorded in the books of account and the legal battles over its residual assets will be fought with skill and precision."

Mr Sheldon, in his remarks last week, warned of these trends in the universities. Arguing that they should be very concerned about the declining proportion of their graduates going into industry, he said: "If the trend were to continue universities could become remote from the economic needs of the country, studying, recording and commenting on the decline of our industrial society rather than preparing those who will be required to redeem it."

As a nation we are probably no worse at employing professional manpower requirements than any other in spite of the disastrous examples of the doctors and teachers, and certainly a great deal of essential information remains to be collected and collated if those problems are to be tackled effectively.

Sense or prejudice?

From Dr A. Crabbe

Mr Fraser Leach refers to Quakers marrying Quakers and Catholics marrying Catholics as "a system of religious prejudice which is racialist in implication" (THES, December 26, 1975). But surely Mr Leach overstates his case. Is it racialist for somebody to consider the views espoused by some people and reject them on grounds of predictability, even of narrowness?

I would commend that while 22 Dicenall Road, [illegible]

Yours faithfully,
A. CRABBE,
22 Dicenall Road,

[illegible] Quakers [illegible]

LETTERS TO THE EDITOR

Splitting SSRC committee work

from Dr John Wakeford

Sir,—Your report (*THES* January 2) *stated that consultation by the* Social Science Research Council with the British Sociological Association showed that "sociologists raised no significant opposition" to *the proposal* to split the sociology and social administration committee.

On the contrary, we communicated the concern and alarm of our members to these preliminary ideas in November. The matter, in our view, could have the most profound implications for social science *research work in this country.*

The distinction between the two fields of activity is far less clear than the constituent terms used in the present title of the SSRC committee would suggest. Not only is the relationship between social administration/social policy and sociology already close, we take the view that it should be closer. Work in both areas has nearly always benefited from a cross-fertilization between sociological perspectives *and the substantive field of social* policy.

The effect of the proposal would inevitably weaken these links and might distance the mainstream of sociology in Britain *from a concern* with social policy, social problems and social welfare. In many of the fields at present covered by the combined committee including race, medicine, organizations, professions and occupations, deviance and community studies, this would surely be *undesirable.*

We suspect that work in the field of social administration would have little to gain academically and much to lose from this separation.

Although some workers in the area have strong interests in other disciplines such as psychology and economics, very few applications considered by the present combined committee are also *referred to the* committees for these subjects. The evidence we have, and that in the published reports of work supported by the SSRC, indicate that research *in social administration* is overwhelmingly more allied to a sociological framework than to that of any other discipline—a framework which we feel has on the whole been beneficial.

The sociology of social welfare and social policy is now itself becoming recognized as an area of importance. In fact the present committee has recently favourably considered a proposal for funding an initiative by us in this field and it would be ironic at this time for the SSRC to agree to a separation in function along the lines proposed.

Incidentally, we wonder whether such a division might entail additional *administrative work*, additional delays in response to applications and additional expense to be met by economies elsewhere. The SSRC has only recently extended its committee structure and unless there are the most forceful arguments for splits of this kind supported by evidence of a workload totally out of line with that of other committees, in the present economic climate we feel that the SSRC should postpone agreement to divisions of this *kind.*

Yours faithfully,
JOHN WAKEFORD,
Honorary general secretary,
The British Sociological Association.

Tenure as property

from Dr L. H. Palmier

Sir,—Keith Graham argues (*THES, December 12, 1975) that university* teachers are "working class" because, as they are not "share and stock holders", they have to work. There are grounds, however, for contending that our position (or at least that of the 80 per cent of us who enjoy tenure) is in fact closer to that of shareholders than of industrial employees.

In fact, our position is not dissimilar to that of the many propertied men of previous centuries who devoted themselves to science or scholarship; we are no more "working class" than they were. We may be underpaid and even defrauded but we enjoy considerable privileges; that they are essential to free inquiry does not reduce their importance. Rather than impersonate industrial employees, we *serve the world better by* ensuring that we continue to justify our tenure.

Yours faithfully,
L. H. PALMIER,
School of Humanities and Social Sciences,
University of Bath.

Chelsea School of Art

from Dr Edwin Kerr

Sir,—Your report on the BA(Hons) course in graphic design at the Chelsea School of Art (*THES* January 2) places too severe an interpretation upon the council's decision and may thus be needlessly harmful to the school.

It is true that at the time of the visit the council felt unable to extend approval of the course beyond 1977. But the actual effect of this decision is that an extension of approval beyond that date will be conditional upon the satisfactory submission of a revised course proposal.

It is not strictly true at the present time that the school will be unable to recruit students to the course for September, 1976. The school is required to provide some interim assurances before recruitment is confirmed. My council would, naturally, hope that the school's responses of these *arrangements will be satisfactory.*

I am sure you will agree that it would be most unfair to the school if your readers were prematurely to form adverse conclusions as to the future of the course.

Yours faithfully,
EDWIN KERR,
Chief Officer, Council for National Academic Awards.

Crosland's policy

from Mr John Pratt and Mr Tyrrell Burgess

Sir,—It may be that, as Sir Alex Smith writes (*THES* January 2) the thesis that polytechnics do not want *to be polytechnics* has been thoroughly discredited. It is not true, however, that the thesis is ours.

In so far as our book (*Polytechnics: A Report*, Pitman, 1974) can be reduced to a thesis, it is that if Tony Crosland had wanted a binary policy, he should not have designated polytechnics but that, *having done so, he should have* eliminated the constraints to the polytechnics' fulfilling his policy.

Yours sincerely,
JOHN PRATT,
TYRRELL BURGESS,
Centre for Institutional Studies,
North East London Polytechnic.

Poly pay mania

from Professor Julius Gould

Sir,—There has been some press *comment*, not all of it favourable, concerning the proposal to appoint an assistant director at a London polytechnic at a salary of £11,271 plus the appropriate London allowance.

I have recently come across a reorganization plan at another polytechnic which envisages the creation of eight permanently appointed deans who, so far as could be gleaned, would not have teaching duties: I feel sure that such deans would all be appropriately remunerated.

What sort of mania is afflicting the "public sector" of higher education? Mr Mulley, in a very kind personal communication that I received this morning, is reminded me of the nation's serious economic problems. Mr Crosland, long since, has warned that the party is over. *How long does it* take for the message to reach the "public sector"?

The Titanic may or may not be sinking: there *may* be time (for *those so disposed*) *to rearrange the* deck-chairs; but, even when lord is dressing, must the deck-chairs be so fervently restructured and "up-valued" in the manner of *the recent and lamentable reorganization* of local government?

Yours sincerely,
JULIUS GOULD,
Professor of sociology,
Nottingham University.

Bluffer's bluff

from Mr G. D. Veisey

Sir,—I must take exception to Laurie Taylor's bluff phrases about Stephen Leacock (*TIHES, November* 7, 1975). *He demonstrates a very* Macchiavellian approach to reviewing. Anyone who knows potatoes from bodsocks will pierce his veil.

Stephen Leacock, Mr Taylor, is a *Canadian, and a bluffer of Balleyn* proportions.

A glance at his "Getting by at College" will recall to mind the exalted prose of Ecrondignacht, "*Stephan ist nicht* on Amerikaner", or more aptly, M. Globulus "Terra est rotunda sed locus tuus est insulus".

Needless to say, I am rushing out to acquire the bluffer's manuals, despite Mr Taylor's Berkleyan reviews.

Yours sincerely,
G. DOUGLAS VAISEY,
Librarian,
Saint Mary's University,
Halifax,
Canada.

Don's quiz

from Mr John Miller

Sir,—In case any of your readers were mystified by the last entry in my Don's Diary and may have suspected a connexion with its publication on Christmas Eve, I feel I should point out that the two missing sentences were: two *sentences* were left out and made my ending more of a Christmas quiz than I intended.

Yours faithfully,
JOHN MILLER,
Faculty of Educational Studies,
BBC/Open University.

How the Greek ideal was put to the sporting test

The first Olympic Games were held in Greece every four years, without a break, for over a thousand years, from 776 BC to at least 261 AD. Moses Finley and H. W. Pleket describe the programme of the games, from the opening chariot races to the bloody bouts of boxing and the 'pankration', in which death was a recognised risk

he spring of an Olympic year, three red heralds" set out from Olympia to every corner of Hellas, proclaiming the coming Games. The date was fixed ding to a complicated religious calen- so that the third day of the games s coincided with either the second or ird full moon after the *summer solstice.*

e competitors were required to arrive in the district in which Olympia is situ- at least one month beforehand and to under the supervision of the judges. rs, by the tens of thousands, came as, and how they chose, including spectaood and drink purveyors, official repreatives of many Greek cities (normally ing gifts to Zeus), touts and gamblers pimps with strings of girls (who plied r trade outside the sacred precinct since as closed to women).

hey were accompanied by pedlars, flowerrs, and the singers, dancers and orators *provided the "fringe"* programme- hort, the sort of motley assemblage found reat fairs everywhere or, still in our time, ertain shrines on the more popular holy s, such as Assumption Day on the Greek nd of Tenos.

t Olympia, the chariot race was the ding event, after the initial day of preation and worship. The two-wheeled riots, each drawn by four horses abreast, ered the Hippodrome in a procession ded by the purple-robed judges, a herald a trumpeter. As the competitors passed judges' stand, the herald called out the nes of the owner, his father and his city, n the proclamation became officially in, with the most spectacular (as well as most costly) of all the events.

o us that may appear bad planning, for chariot-race seems perfect for the climax her than the beginning of the Games. idea seems to have been to open with competition that offered the greatest *portunity for pomp and splendour*, and subsequent entry parade or contest was mparable on that score.

he Hippodrome was not a building but a ge, rectangular, more or less flat, open ace immediately to the southeast of the idium. The northern side was closed off a low hill, on which spectators stood, a southern side by an artificial embank- nt, also for spectators. There were seats y for the judges and a few celebrities. The course was marked by the starting- s and two turning-posts at either end, ch another Arcesilas's victory as the lone ler was not normal, but it is not very ising.

e excitement among the spectators must mounted to a wild crescendo when the

Extract from The Olympic Games: The Thousand Years, *by M. I. Finley and H. Pleket, to be published on January 29 with Viking and Windus at £5.00.*

trumpet's blare announced the last half-lap, a straight gallop to the *finishing-post.* The judges presented the victorious owner with his olive wreath; he was acclaimed by loud shouts and pelted with flowers and branches.

The charioteers, whose skill and courage *were decisive, remained curiously* shadowy figures, never achieving anything comparable to the frenzied popularity of Roman and Byzantine jockeys and charioteers. Like the

Long-jumpers used weights to increase their distance. *From an Athenian cup of* about 500 BC.

managers of the stud farms where the winning horses were bred, they were merely part of the necessary but unsung underpinning of the contest, even when they were enshrined in a statue commemorating the owner's *victory.*

The chariot had for many centuries ceased to be a functional vehicle, whether for transport or in war. But in the Homeric funeral games, at least, the noble princes themselves were the drivers in the races; now the chariots had become pure status symbols, the charioteers mere hirelings of the wealthy, *aristocratic owners.*

An interesting by-product was the opportunity for women to win" an Olympic event without descending the games by their physical presence. The first was Cynisca, daughter of King Agesilaus II of Sparta, who won the chariot race twice, in 396 and 392 BC, and made splendid dedications to Zeus in commemoration.

Horse racing developed along parallel lines. Although cavalry units had become of secondary importance in Greek armies, service in them was still honorific, and every landed *gentleman had his stables and rode his horses* —but not in the races at the great games. Again the anonymous jockey won the honours for the owner.

The Olympic horse race followed in the Hippodrome immediately after the chariot race, on the same course. No wonder gentlemen preferred to ride themselves: riding an unshod horse bareback and without stirrups (neither the horse-shoe nor the stirrup was known in antiquity) over a field that had just been churned up by the chariot teams could not have been much fun.

*The afternoon of the second day was devo*ted to the pentathlon, held in the stadium with the probable exception of the wrestling which was apparently contested in the open spaces round the altar of Zeus.

The ground was prepared for these events, and for all that followed to the close of the games by being broken up with a pickaxe and then covered with a thick layer of sand. From late in the sixth century BC, furthermore, all *contestants* were naked and barefoot as they raced, jumped or wrestled on the sand—a Spartan innovation, according to the historian Thucydides, writing at the end of the fifth century BC.

The first three events of the pentathlon, the discus, the standing long jump and the javelin, were restricted to the pentathlon, whereas the 200-metre sprint and wrestling were also independent events on the fourth day.

The discus, usually of bronze, was shaped the same as ours and thrown in much the same way, though it was probably somewhat heavier. Each competitor was given five throws, only his best counting, marked out by a peg.

The same rule applied to the javelin event, in which the missile, lighter and longer than the hoplite's thrusting-spear, was normally blunted at the end and was hurled with the aid of a thong. A cord 30.45cm in length was wound tightly round the shaft near the centre of gravity, leaving a loop of 7-10cm which was grasped by one finger.

The effect was both to give the arm additional leverage and to impart a spin to the javelin in flight, thereby helping it to retain its direction *and to carry much farther.* Experiments in the nineteenth century, one of them sponsored by Napoleon, suggested that, after sufficient practice, a thrower might more than double the distance.

That is simple enough, but the long jump presents a confused picture. The jumpers carried a pair of stone or metal weights of varied shapes (some look very much like dumb-bells), with an average weight among *surviving specimens of two kilogrammes.* They were swung forwards to shoulder height, and then, on the down swing, the jumper leaned well forward and leaped as the weights came down to his knees.

The purpose, we are told by ancient writers, was a dual one, to increase the length of the jump and to assure a clean landing, without which the jump was ruled a foul. Recent experiments show that both effects are achieved only in a standing jump, which can be increased by as much as 20 centimetres, whereas weights invariably re*duce the length of a running jump.*

What remains uncertain is whether each contestant was given five separate jumps, as with the discus and javelin, or whether he had to jump five times in a continuous pro*gression, with a single bad landing having* the effect of an elimination.

And so the first day of competition came to an end. The following day, the third of the festival, coincided with the full moon. *The morning was occupied* with various religious rites, public and private, culminating in a great procession that started from the Magistrates' House and wound its way about the sacred precinct until it reached the altar of Zeus where one hundred oxen were sacrificed on the large platform. The afternoon was given over to the three boys' events (we should say "*juniors*"), the *200-metre* race, wrestling and boxing.

The morning of the final day of the competition was fully occupied with the three running events, 200 metres, 400 metres and *the long-distance race (4,800 metres)*, all held in the Stadium, a flat area at the foot of the Hill of Cronus with an artificial embankment on the other side, much like the Hippodrome.

The start was marked by a row of marble sills, spaced off for each runner, who rested his back foot against his sill, kept his other foot a few inches in front and leaned forward for the start. False starts were punished, and a starting-gate which was introduced in the fifth century BC would have helped.

The sprint was a straight dash down the stadium, the 400-metre race was double the distance, or one full lap, the 4,800-metre run 12 laps. That much is clear but little else. Did the sprinters run to posts at the opposite end spaced as the starting-sills were spaced, *or did even they have to race for the single* turning-post at the runners' seats to have done in the longer distances (and as the horses and chariots certainly did)?

At last the moment came, on the final afternoon, for the tough and exceedingly popular body-contact sports, wrestling, boxing and the pankration. The procedure was similar to our own: lots were drawn from a silver urn, the winners in each pair fought each other, and so on, until the final bouts.

The draw naturally gave patron deities a chance to extend favours: the element of faith and magic behind Lady Luck explains the otherwise curious practice occasionally noticed of depicting on coins and monuments the urn from which the draw was made.

All three sports were brutal, not to say *violent to varying degrees. There were few* rules, no time limits and no rounds. There were also no weight-classes, so that top-level competition was restricted to big men, well muscled and tough.

Ancient writers disagreed about the relative importance of technique on the one hand and weight and strength on the other but *there seems a rather academic dispute.* The many stories about the most-eating capacity of the great boxers and wrestlers are more to the point, and the representations in paintings and sculpture, including the *occasional caricature, stressed muscles and* a bull neck.

The aim in a wrestling match was to score three falls. A fall was defined as touching the ground with the knees. The half-legendary Milo of Croton, a great meat-eater, warrior and disciple of the philosopher Pythagoras, boasted that he was never brought to his knees: he won the boys' wrestling at Olympia in 540 BC, the senior event at five successive Olympiads between 532 and 516, as well as six times in the Pythian Games, 10 times in the Isthmian and nine times in the *Nemean.*

Presumably biting or gouging was prohibited, but not much else. A fifth-century BC wrestler named Leontiscus, from Messina in Sicily, tried to break his opponent's fingers as quickly as possible. He was *remembered* because he was one of the first wrestlers to develop new holds beyond the conventional ones.

Nevertheless, wrestling did not rank as a brutal sport; few stories give it an image of being particularly bloody and painful, let alone of being a cause of death. Boxing was *the really tough sport.* Leather thongs were wound tightly round the hands and wrists, leaving the fingers free, and the originally soft leather eventually gave way to hard, sharp thongs.

Blows were allowed with both the fist and the open hand; few punches were prohibited. The two contestants fought on, without a break, *until* one or the other was either knocked out or raised his right hand as a sign of defeat.

No wonder that drawing blood was the least of the damage one might inflict. *To have completed a boxing career* "unwounded" (*akraumatistos*) was a rare and understandable boast. Only one man, Cleomedes of Alexandria, appears with that adjective appended to his name in what *survives of the Olympic victor lists (under* date of 240 BC).

There is a story that Cleomedes of Astypalaea (an Aegean island) "unjustly" killed an opponent at the games in 492 BC. The judges denied him his victory and he subsequently went mad. We are not told what rule he had broken, but it was the foul, not the killing, that was punished. Death was one of the recognized risks in sporting contests; hence the low-accepted fatal accidents from a charge of homicide.

All in all, ancient boxing appears to have *been more ferocious than the modern version.* Blood was what the spectators came for, and blood was what they got. The classic ancient dream-book, by Artemidorus of Ephesus, explained that to dream of boxing is bad luck for everyone except "*those who handle* blood in order to earn a living, namely, doctors, priests in charge of sacrifices, and cooks".

The line between fair and foul play was drawn closer to "anything goes" than we accept today. It was unknown for boxers (or any athletes for that matter) to shake hands before or after a match. The spirit of Pindar's lines, "You meant them harm . . . disaster *has bitten them*", was incompatible with

The pankration, a virtually "no holds barred" combination of wrestling, judo *and boxing. The judge's whip is also visible.*

such a gesture.

Then, as if the wrestling and boxing were not enough, the programme continued with the fourth sport of all, the pankration, a technical term created out of the Greek adjective, *pankrates*, "all-powerful" (applied to Zeus, for example). It can be described as a combination of wrestling and judo, with a bit of boxing thrown in.

The common English *translation*, "feat of strength", is a polite fiction: the contestants punched, slapped, kicked, wrestled (much of the time on the ground) and even—though illegally—bit and gouged each other until one *surrendered by tapping the victor on the back* or shoulder.

Predictably, this sport also produced its crop of gory tales. Pausanias tells one about an Arcadian pankratiast who had reached the finals in search of his Olympic victory. The unnamed opponent "caught Arrachion, held him with a scissors grip and at the same time throttled him with his hands so Arrachion broke one of the man's toes.

"Arrachion died by strangling, and at the same time the strangler gave in from the pain in *his toe. The Eleans crowned the dead* body of Arrachion with the wreath and proclaimed it as the winner." And his native city of Phigaleia erected his statue in its central square.

Yet the ancients held the pankration to be less dangerous than boxing. It was widely boasted that he was never brought to his knees: he won the boys' wrestling at Olympia in 540 BC, the senior event at five successive Olympiads between 532 and 516, as well as six times in the Pythian Games, 10 times in the Isthmian and nine times in the *Nemean.*

Presumably biting or gouging was prohibited, but not much else. A fifth-century BC

The authors are respectively professor of ancient history at Cambridge University and reader in Greek and Latin epigraphy at Leiden University.

BOOKS

Primitive production

Marxist Analyses and Social Anthropology
edited by Maurice Bloch
Malaby Press, £6.75
ISBN 0 460 14003 5

This volume arises from a conference of the Association of Social Anthropologists in Oxford on new directions in social anthropology. One of the topics was "the place and the influence of Marxist theories in social anthropology". Six of the seven papers are by young anthropologists in their mid-twenties and mid-thirties, all applying and extending a Marxist approach in specific topics of their interest. There is in addition a heavy dose of scepticism from Raymond Firth whose inaugural Radcliffe-Brown lecture of 1972 is reprinted here.

The term "Marxist approach" can be interpreted in many ways. Defined narrowly in terms of Marx's own work one can rightly claim as Raymond Firth does that its contribution to the concerns of anthropologists is marginal. Marx's concern was mainly with capitalism and its dynamic. His remarks on pre-capitalist societies lack both the mastery of detail and the theoretical complexity of his other work. On the other hand, one could claim that Marx's method—the method of historical materialism—should apply, was meant to apply to all the possible social arrangements and its merits are independent of Marx's particular contributions. Thus Emmanuel Terray in his essay starts by stating his aim of "bringing social anthropology within the ambit of historical materialism and thus demonstrating the universal validity of the concepts and methods developed by the latter."

The methods and concepts are the notions of the mode of production, the division of any social formation (itself a combination of overlapping modes of production) into an infrastructure and superstructure and the dialectical dynamic provided by the tension between forces of production and relations of production. Overlaying all these is the central idea that empirical reality and its perception in ideology may seriously misrepresent the true underlying structure. Indeed the phenomenal may be the mirror inverse of the real.

Thus a Marxist approach looks for deeper structures and unities. Godelier starts off the collection by castigating the empiricist approach of field studies in anthropology and the frequent resort to functionalist explanations for observed behaviour. He poses instead a question which many of the papers come back to. Is kinship a part of the infrastructure or of the superstructure? Is kinship a relation of production—a method for appropriating and distributing economic surplus—or is it just a cultural reflection of the economic base?

Godelier as well as the other writers who face this question—Terray, Bloch and Friedman—decisively reject the old dogmatic assertions of a one-way relationship between base and superstructure. But once the old tried formula is (rightly) rejected, a bewildering multiplicity of models emerge. Thus Godelier in considering the work of Yengoyan on the *Kariera* of Western Australia comes to the conclusion that kinship could be part of both infrastructure and superstructure. Indeed he adds that there must be posited a simultaneous causal interaction between the base and the superstructure.

Much more interestingly than Godelier, Maurice Bloch in his work on Madagascar examines the kinship patterns of two tribes with contrasting economic bases. The use of common words to denote kinship relationships appears at first paradoxical, but Bloch brings out very carefully how one of the tribes—the Merina—distorts the basic social relationship which appears as an ideological one of ancestral worship and the other tribe, the Zafimaniry, does not distort the basic economic relationship. Existence of inequality in access to the basic means of production, land and investments of past labour in case of the irrigated rice cultivation pattern of the Merina, contrasted with the Zafimaniry's comparatively equal access to social labour seems to account for the different representations of social reality in the two tribes.

But how does surplus emerge and what forms does accumulation take in the realm of the relatively primitive forces of production? Can one determine a dynamic of accumulation and tribal kinship/political structure which will account both for the synchronic observations on tribes at a point of time and the diachronic changes in a tribal political structure over time? This ambitious task is undertaken by Jonathan Friedman in his essay on the Kachin of Upper Burma. He extends his model to cover the major tribes of the Naga Hills, Upper Burma. The cyclical alternation between egalitarian (*gumlao*) and authoritarian (*gumsa*) political structure among the Kachin is traced by him to the nature of accumulation.

Accumulation sets forth a chain reaction through feast giving and wife exchange which determines the domination of the original accumulating family. Debt bondage and marriage are two ways of expanding available surplus labour but the forces of production—Swidden agriculture—militate against rapid population growth and extensive territorial conquest. The inability of more than a very small minority of the aristocracy to sustain the demanding round of feasts and tributes leads to break up of the authoritarian structure. From a two-class *gumsa* society, the Kachin revert to the one-class *gumlao* arrangement. Friedman then has to extend his model to relate population density and technology to explain the political structures of the *chin*, the *Naga* and others.

Space is too limited to do justice to all the papers. Stephan Feuchtwang's paper on ideology sets up an explanation of Chinese religion. It is the strength of the Marxian model as worked on by this new generation of anthropologists that similar explanations of the nature of ideology—religion and the supernatural—are found in Bloch and Friedman's essays as are in Feuchtwang's essay. Terray's discussion of class structure is immensely useful not only for anthropologists but also those who are trying to think through a model of housework and of women's exploitation in the households. Joel Kahn's is the only essay to consider the interplay of two modes of production—the capitalist with the precolonial/colonial situation of Sumatra blacksmiths. This is an impressive essay which also deserves full discussion.

This is by no means a flawless volume. There are still many logical gaps to be filled and the weight of past doctrine is still heavy, but the Marxian approach to social anthropology has now to be taken seriously. Those who do not like it will have to demonstrate that their own alternative models can explain data of anthropology as well if not better.

Meghnad Desai

On cultural categories

Implicit Meanings: Essays in Anthropology
by Mary Douglas
Routledge & Kegan Paul, £7.50
ISBN 0 7100 8226 6

"The dispute is like one between pilgrims travelling to quite different shrines who yet try to persuade each other to take the same route." Mary Douglas makes this remark in connexion with disputes within her own discipline, social anthropology, concerning rival systems of sociological comparison, but it focuses usefully on a major difficulty I experience in reviewing her book. Her essays constantly and deliberately go beyond the discussion of particular societies, institutions and cultures to raise questions about the general nature of human thinking and the interpretation of concepts like language, causality, necessity, self-evidence and the *a priori*. In proceeding thus she is following her great predecessor, Emile Durkheim, who believed that his account of the relation between individual and society and, especially, his concept of "collective representations" springing from the most basic organizational structures of social life, pointed to the solution of the kinds of philosophical difficulty which had so preoccupied Hume and Kant among many others.

My difficulty is not, therefore, that I see any inappropriateness in a philosopher's reviewing a book by an anthropologist. It is, rather, that the kind of consideration that Professor Douglas regards as decisive in trying to resolve these philosophical-sounding problems so often strikes me as passing the difficulty by. This is obviously connected with the fact that my conception of the problems has developed within a rather different kind of intellectual tradition from that in which Professor Douglas is mainly at home. However, I do not in fact think that she and I are travelling towards different shrines, misleadingly called by the same name. I think rather that, in the general philosophical conclusions she wishes to draw, she wrongly identifies the issues to which these conclusions relate. In other words the uneasiness I feel over this aspect of her work is a genuine philosophical uneasiness.

Professor Douglas believes that Durkheim did not go far enough: that he did not see that the kind of sociological analysis he applied to the thought of "primitive" societies is equally applicable to our own modes of thought. The essays in this book develop and often modify (with very generous acknowledgments to her critics) the thesis of her celebrated earlier book, *Purity and Danger*: that the idea of ritual pollution reflects the need of a given society to protect the most deep-seated classificatory categories it applies to its natural environment and that these categories in their turn are based in structural features of the society's institutions within which individuals have to live their lives and conceive their relations with each other.

Professor Douglas argues, surely rightly, that we members of complex industrial societies are no more immune from treating certain categories as sacrosanct (without realizing that we are doing so) than are "primitives" and concludes: "The first step in achieving objectivity is to discount messages about ourselves that are carried in the purity rule."

The possibility of "achieving objectivity" and of reconciling this with recognition of the relativity of modes of thinking to particular cultures is a recurring theme throughout these essays which cover many topics—jokes, on eating a meal, do dogs laugh?, Carlos Castaneda among some of them. This is connected with the "ticklish problem of validation" facing an anthropologist who offers an interpretation of cultural categories, the solution of which requires "a convincing demonstration of how the cultural categories sustain a given social structure".

It is Professor Douglas's conception of the relation between "cultural categories" and "social structure" that gives me the most difficulty. As other philosophically literate sociologists have done before her, she sees a close connexion between Durkheim's insistence that the thought of individuals is possible only in the context of "collective representations" reflecting a social organization and Wittgenstein's discussion of the nature of thought and language in terms of "forms of life". Of course there is *a* connexion but, in my view, a much more fundamental divergence.

According to Professor Douglas both Durkheim and Wittgenstein argued that "the known cosmos is constructed for helping arguments of a practical kind", the difference being that while Wittgenstein thought this held for *all* men Durkheim restricted his claim to primitive man. I think, on the contrary, that Wittgenstein would have utterly rejected Professor Douglas's formulation. It would take too long to demonstrate this in detail, but anyone tempted by her interpretation would do well to ponder on Wittgenstein's treatment of the question "Why do men think?" in *Philosophical Investigations*, and on his insistence on the independence of "rules of grammar" from the attainment of any independently conceivable practical end, e.g. in *Zettel*.

Professor Douglas by no means commits herself in all contexts to this pragmatic conception of thought, though when she is treating of very general issues, such as the nature of logic, she often sails dangerously close to the wind in suggesting that what logic *is* will be explicable in terms of "the devious ways in which humans use logic to deal with one another". The misleading pragmatist suggestion of this formulation would have been avoided if she had noted simply that what we understand logic to be is manifested (*inter alia*) in the ways we talk to ... without any further ... the "reason why" we ... other, to be found in ... "social structure".

The difficulty I see in ... Douglas's "unreconstructed ... heimianism" lies in the ... that we can identify ... contentful social structure ... dently of attaching any ... language in which such ... ships are expressed. ... philosophers and ... claim that language lim... bilities of thought, on ... that language is not an ... variable and that the ... factor is "the set of hum... which generate ... speech". This "set of ... tions" is very formally ... ceived in terms of ... non-membership of a ... i e, *social* class). If ... (as it is by Durkheim ... that an individual's under... *natural* classifications is ... plained through his ... of *social* classification ... entitled to ask why th... not equally need "... and whether these soc... tions themselves consti... uinely independent ... instance, Professor Dou... inatingly sets alongside ... the ancient Israelites' ... ingly exclusive religious ... and the exclusiveness of ... tions with foreigners and ... doubt right to point ... latter, social, exclusi... much to do with the terri... their territorial ambitions ... exposed position vis-à-... empires. But does this ... Israelites' concept of ... Could one not with equal ... that the Israelites' peculi... tion of foreignness itself ... sense except in terms of ... cept of holiness? "... means being set apart ... there are more ways ... which "being set apart" ... understood; that is, ... of this expression ... context to another and ... "apartness" of what is ... as holy presupposes an ... ing of the relevant relig... of discourse. It can be ... (as it is by Professor Dou... setting it alongside other ... tions of apartness. The ... In supposing that its ... "meaning" has then some... explained or that we now ... account of its "origins".

My tentative conclusion ... that Professor Douglas's ... argument does not, and ... nature, take her nearly as ... supposes. All the same ... shedding light in dark ... very existence of which ... to overlook. And the ... of her writing to the ... sional makes the collection ... and reprinting of these ... very various original ... extremely worthwhile.

P...

Patterns of divine revelation

Phenomenology and Religion: Structures of the Christian Institution
by Henry Duméry
Cornell University Press, £4.35
ISBN 0 520 02714 0

The aim of this book is to describe, not to evaluate, the structure of biblical religion. Divine revelation in the Old Testament, Duméry claims, has three characteristics. It occurs, primarily and distinctively, through history, not nature; it "becomes concentrated in the testimony of a few, who then become the 'type' of what has to be believed and done"; and it possesses a "concrete universality" in so far as, though first given to the chosen people Israel, it was meant for the whole human race. Duméry then claims to show that this threefold pattern is fulfilled in the New Testament and especially in the latter's statements of belief in Christ as God's incarnation.

I think that Duméry's threefold description is valid and that he cites appropriate evidence in its support. Moreover, he shows himself aware of the differences as well as the similarities between the Old and the New Testaments. My queries are terminological and methodological. "The sense that Duméry gives to "type" is a strange one. I think that the word should be reserved for its normal use with reference to biblical "typology". Also it is incorrect to call (as Duméry calls) Hebrew religion "mystical" in any exact and distinctive sense of the adjective. Chiefly I am not clear concerning the nature of the religious phenomenology that Duméry here exemplifies. "Phenomenology", he says, "limits itself to describing phenomena and, in its own terms, does not permit the forming of judgments." I fail to see the difference between a phenomenological account of a religion and an account given of it by any competent historian or biblical scholar.

My doubts concerning Duméry's "phenomenological" approach are confirmed by the general reflections that he offers towards the end of the book. I shall give one example (which is obviously the most important one). On page 71 Duméry writes that "the anthropomorphisms of the Bible must not be imputed to God Him... rather to him who is spea... 'is revealing', which is to ... they must on no accou... buted to Him who 'reveals' ... by and through man, ... say, the Absolute". ... page 81 he says that the ... "is to be thought of as ... and undetermined, since ... cendent; but one must be... it *reveals* itself in history ... as a result of the structure ... tory, it appears as an A... dialogue, of union, and ... that is prevenient, enabl... so on". The status ... affirmations is not clear ... they to be understood ... descriptions of biblical ... as an attempt to make ... beliefs that the biblical ... imply? If so I maintain ... are false. Or are they ... taken as metaphysical ... that Duméry finds him... pelled to form in the light ... that he independently ... cerning God and his rela... world? If so he should ... it plain.

H. P...

Expressing all the facets of love

...urice Scève: Poet of Love
...Dorothy Gabe Coleman
...nbridge University Press, £6.50
...N 0 521 20745 2

...nsard: I—Poems of Love
...ected and edited by Grahame ...stor and Terence Cave
...nchester University Press, £1.85
...N 0 7190 0609 0

... Coleman's central thesis is that ... study Scève's *Délie* within the ...ntext of the contemporary con...ntions and the wider traditions ...racco-Roman, Christian, Petrarch...) which moulded his work, ...ances his stature as a poet and ...ables one to discover his individ...ual and personal voice, his undeni...ble originality in rendering the ...tensity of the love experience in ... emotional and intellectual com...plexity. Similarly, an awareness of ...ntemporary poetic theory, with ... principles of enrichment, imita...tion and literary allusiveness acting ... important catalysts in the crea...tive process, is essential to our ...nderstanding and appreciation of ...cève's love poetry.

A good illustration of Coleman's ...hesis is provided by an examina...tion of the *imprese* (chapters four ...o six). Placed in their historical ...ontext and seen in relation to ... well-established contemporary ...talian tradition, they appear much ...less obscure and irrelevant than ...ne might at first suppose. Cole...man argues convincingly that it is ...the function of the woodcuts and ...mottoes which provides the clue ...for classifying them as *imprese ...amorose*, and that as such they ...form an essential part of Scève's ...poetic technique, complementing ...and illuminating the companion ...poems as illustrated metaphors and ...pictorial love-conceits. Whilst some ...of the *imprese* and their related ...*dizains* reproduce the stereotyped ...imagery, themes and conceits of ...much conventional Petrarchist and *précieux* poetry, others form an intellectually dense and a richly allusive unity and these transcend the stylized tradition and explore the psychological realism of love with suggestivity and conviction.

Coleman also supports her thesis by analysing the way Scève modifies certain features of the Petrarchist tradition in order to achieve a totally different and a highly personal orientation to his expression of love. Indeed, a greater affinity can often be discerned between Scève and the Latin Augustan erotic poets (especially Propertius) than between Scève and Petrarch, once one goes beyond the question of direct textual debt to examine the actual vision of the experience of love.

As Coleman demonstrates, the poetic value of *Délie* is not to be sought in any one consistently idealized or spiritual conception of love, be it neo-Platonic or Petrarchist, but rather in considering the best *dizains* as individual expressions of the different emotional and intellectual facets of love. Far from discovering a unity of tone or a consistent love-doctrine in the cycle, Coleman insists instead on the ambivalence both of Délie's nature and of Scève's love—simultaneously chaste and carnal—and it is this duality which dictates the basic framework of the collection and many of the recurrent themes, myths, images and poetic devices. In the ambivalence of love that characterizes the poet's relationship with Délie, Coleman discusses the interconnection between passion and the control of that passion by linguistic formulation and, via detailed textual analysis, she traces Scève's poetic achievement to the density of his imagery and syntax and to the allusiveness of his language, with its rare combination of the literal and the figurative, the concrete and the abstract, the intellectual and the sensual. At the same time she is not blind to Scève's numerous faults (gratuitous obscurity, over-complicated structures, a tendency to schematic abstraction, awkwardness of syntax, the reproduction of commonplace Petrarchist themes, the mere elaboration of stock conceits) and her study of the best poems is frequently balanced by discussion of less successful *dizains*.

Coleman's study clarifies many of the textual difficulties encountered in the cycle, and, although in her enthusiasm she lapses on rare occasions into vague and loose remarks ("and we feel a thrill of admiration . . ."), her aesthetic comments and critical judgments of individual poems are invariably sensitive and authoritative. She convincingly challenges accepted interpretations and redirects our perspective of Scève in several respects. Her book has a wide range of comparison and literary reference, and this not only highlights Scève's originality but supports discussions of certain wider principles of poetic theory and practice. Only the introduction seemed rather limited in its investigation; the inclusion of Horace is not totally appropriate or convincing within the context and the discussion fails to suggest criteria for defining and assessing "difficult poetry". However, Coleman's book clearly establishes Scève's as a major love poet and it will send specialist and non-specialist alike back to the original text with heightened awareness.

Ronsard: I—Poems of Love is the first of two volumes designed to give a comprehensive selection of Ronsard's verse and to fill a gap between existing introductory anthologies and the complete editions. This first volume provides a rich anthology of Ronsard's erotic poetry selected from his three major love-cycles as well as from a variety of other collections in which amatory poems figure. It is a well-balanced selection with helpful notes, ideal for undergraduate use.

Malcolm Quainton

Poems and pictures

William Blake: The Marriage of Heaven and Hell
with introduction and commentary by Sir Geoffrey Keynes
Oxford University Press, £7.50 and £2.95
ISBN 0 19 212588 5 and 281167 3

Quite apart from his recognized genius as a poet and an artist, William Blake has a claim to fame in that he not only wrote but illustrated and printed his own works. The drawings and engravings that accompany the words frequently contribute to the meaning of the whole, so that to have only the text is like reading the lines of a song without the music. Consequently facsimiles are not just a luxury but essential for a complete appreciation of what Blake wished to convey. Sir Geoffrey Keynes's edition of *The Marriage of Heaven and Hell*, is beautifully reproduced by the Trianon Press of Paris from one of the two copies in the Fitzwilliam Museum.

The Marriage of Heaven and Hell is an important landmark in the development of Blake's thought. Completed in 1790, it reveals his sturdy originality and it marks his break with the ideas of Swedenborg. It sketches out the main features of his portrait of Christ as a rebel—features that were to reappear in *The Everlasting Gospel* over a quarter of a century later. Here too he adumbrates the mental attitudes he was to elaborate in the later Prophetic Books.

In his admirable introduction Sir Geoffrey emphasizes this continuity, but it can be over-emphasized. If Blake had never changed his views, he would have ignored one of his Proverbs of Hell: "Expect poison from the standing water", i e, "The man who never alters his opinion is like standing water, and breeds reptiles of the mind." Blake did alter some of his opinions, e g, his attitude to sexual relations. At the time of writing this work he was looking at the possibility of what is called euphemistically "free love". That splendid proverb—"Damn braces: Bless relaxes"—is not the only support for such an interpretation. However in the Rossetti manuscript we find Blake wrestling with the same problem and gradually moving to a position that rejects promiscuity in favour of love for one's wedded partner.

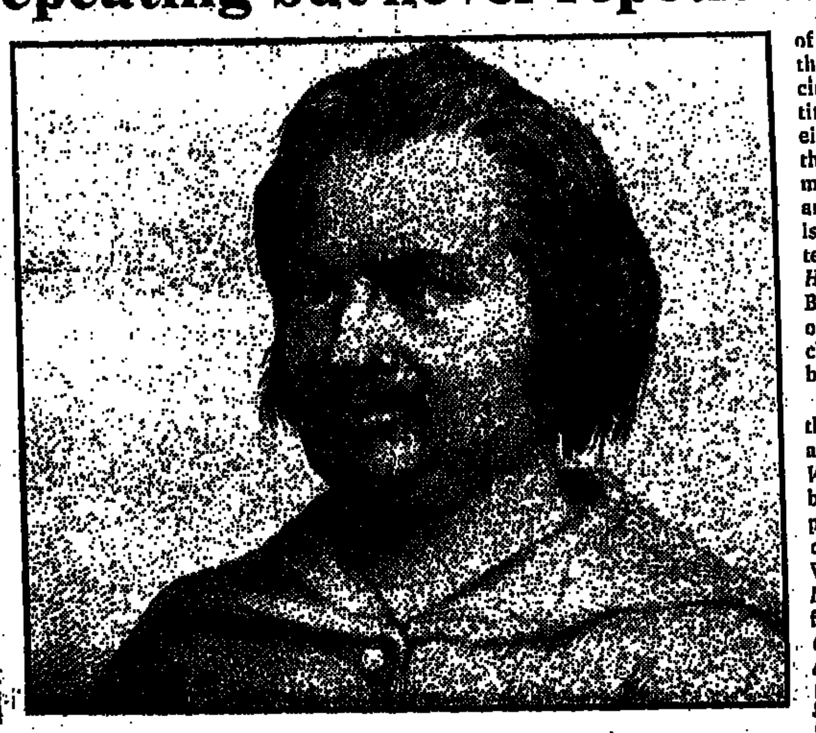
Following the introduction there is printed the text and then the facsimile (27 plates) with, on the verso, a commentary, which pays particular attention to the interlinear decorations. His description of these diminutive drawings owes much to the exhaustive study of these last by D. V. Erdman. His account, together with magnified reproductions from his own copy of the work, enables one to recognize and understand what is actually depicted.

The commentary is not a detailed analysis but a general account of the meaning of text and illustrations. It is balanced and judicious and it would be difficult to fault apart from a few small points. For example, on plate 22 there is the statement that "the worship of God is Honouring his gifts in other men". The comment is: "Thus identifying God with Man." Such an identification is disputable. In other writings Blake frequently spoke of God as a being distinct from Man; he was equally convinced that God is known through other human beings and, in terms of this particular passage, is to be honoured in and through them.

J. G. Davies

Repeating but never repetitive

...Balzac's Recurring Characters
...by A. R. Pugh
...Duckworth, £14.00
...ISBN 0 7156 0798 7



Honoré de Balzac

The title of this excellent book would have been more accurately rendered as *Recurring Characters in the Comédie Humaine*. It is the first truly systematic study of Balzac's use of recurring characters and every Balzac scholar will be grateful to Professor Pugh for having had the will and the tenacity to accomplish it.

At its simplest it is a reference work, a compendium of all recurring characters in the *Comédie Humaine*. Preliminary sketches for novels are scrutinized, as well as all published and revised versions of every work in the *Comédie Humaine*. By looking at them in chronological order Pugh establishes clearly for which text a given character was created. In addition, when the character recurs, ... easy system of cross-references lets us see where the character has come from and to what further uses he will be put. It thus provides a much truer view of the dynamics of Balzac's creations than does the admirable but, by comparison, flatter picture of Balzac's characters available in F. Lotte's *Index des Personnages Fictifs de la Comédie Humaine*.

From this perspective of the recurring characters, we see displayed quite clearly, the often complicated genesis of all the works of the *Comédie Humaine*. Until now few scholars have dared tackle so many works at once, but Pugh has brought order out of the very confusing evidence. Each entry for a text is clear and concise, and many include a fair amount of judicious critical comment. As an example one might take the entry on the 1837 publication of *César Birotteau*. Here Pugh examines the 94 recurring characters actually used in the novel, plus the four who have a sort of half-life on the manuscripts but are deleted before the text is published. All this, and an indication of dates of composition, cross-referencing, an outline of the plot, and two important points of general critical interest are given in the space of six and a half pages.

Not content with this admirable achievement, Pugh turns his reference work into a critical study in which he tackles head-on the aesthetic problems connected with the presence of recurring characters in the novels. Do they increase or diminish the value and interest of what Balzac is saying? Are they a strength or a weakness in the eyes of the reader? The answers Pugh gives are subtle and take account of the differing ways the technique is applied at different stages of Balzac's career, for, once the novelist had discovered and exploited it, he did not simply continue with it mechanically.

One of the most interesting points is that Balzac needed recurring characters as a perpetual stimulus to his own imagination. They "were often as much a matter of private necessity as of communication".

The person interested only in the critical discussion need not search systematically through every entry in order to glean a little here and there. For the author has distilled the essence of the argument in two interim conclusions, one after having dealt with *Le Père Goriot* and the other when the story has been taken to mid-1839, before summing up with a final 15-page essay which will become the classic discussion of this technique.

It may seem churlish to ask for more; but more could be provided. This request arises from the habit of consigning all the works outside the *Comédie Humaine* to a Balzacian ghetto. There is a great quantity of such writings including the eight pseudonymous early novels, the *Contes Drolatiques*, plus the many plays and sketches of plays, and the often fascinating journalism. In many cases they were written concurrently with the *Comédie Humaine* novels, and not only do Balzac's preoccupations in them overlap, but often the names of characters too, and it would have been legitimate to study them here.

Pugh does nod in the direction of the *Contes Drolatiques* and includes a short dismissive entry on the play *Vautrin*, but much more could have been done. The cast of Balzac's play *Le Faiseur*, for example, includes a Verdelin, a Goulard and a Violette, all names intended for *Le Député d'Arcis*. Were they created for the play, then assimilated to the *Comédie Humaine*, or vice versa? A list of characters for a projected play to be called *Les Petits Bourgeois* includes names from *Le Père Goriot* and *Le Médecin de Campagne*. Were they to be recurring characters or simply recurring names? Is there an implied family connexion between the Horace Landon of the early pseudonymous novel *Wann-Chlore* and the comtesse de Listomère-Landon in *La Femme de Trente Ans*? The query over the role of Mitouflet in *Une Election en Province* could have been at least partly solved by reference to the *Monographie du Rentier*, one of the so-called *Oeuvres Diverses*. And so on.

If Pugh were to provide us with a short supplement covering the non-*Comédie Humaine* works and relating them to it, it would then become difficult to overstate the enthusiasm generated by this present volume. Meanwhile, it deserves to be translated into French to obtain the widest possible circulation among all Balzac scholars.

Colin Smethurst

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BOOKS

Modernity v. tradition

Introduction to Modern France 1500-1640: An Essay in Historical Psychology
by Robert Mandrou
translated by R. E. Hallmark
Edward Arnold, £9.95
ISBN 0 7131 5778 X

Society and Culture in Early Modern France
by Natalie Zemon Davis
Duckworth, £9.80
ISBN 0 7156 0919 X

When Professor Mandrou's book first appeared in 1961 he was at pains to point out that it was only an introduction to the little explored area of collective mentalities. Fourteen years later it is difficult to see the value of reprinting it with only insignificant changes in form and none in content. A glance at the bibliography reveals what is missing: Le Roy Ladurie on the peasantry of Languedoc, Ferté on the religious life of the Parisian countryside, W. F. Church on reason of state and all of Mousnier's works except one—to mention but a few of the more recent contributions which could have been used to add weight to what is a very generalized study. Mandrou even neglects his own subsequent work, especially on witchcraft, from which material and ideas could have been drawn. Above all he must be taken to task for letting his book reappear with no mention of the work of Professor Natalio Davis; for in so many of the subjects on which he touched—forms of popular violence, the physiognomy of urban communities, popular festivities, the impact of the Reformation — her contribution supercedes his, or at least adds new dimensions.

More than anything else it is Mandrou's insistence on the modernity of sixteenth-century France which requires qualification. From the outset he fastens on new ways of interpreting nature—the elaboration of original kinds of religious attitudes, the constitution of great monarchies and the development of capitalist methods—as phenomena which produced in contemporaries "a way of feeling dispositions and attitudes which were in marked contrast to those of their predecessors" and which heralded the modern age. This technique of extrapolating those elements which appear to have a modern flavour and generalizing on the basis of them, without simultaneously asking what the *dominant* ideas were, produces a very misleading picture of the intellectual climate. Even if Mandrou is right to see in absolute monarchy the precursor of the modern state, the way in which the majority of the population thought about monarchy changed hardly at all. Nor is it legitimate to proceed from discussion about humanism to claim that the scholars "communicated a new and wider sense of history to a vast public without telling us something of this "vast public". In similar vein, Mandrou also declares that by the end of the sixteenth century seigneurial protection was a thing of the past and that the "Aristotelian edifice" had been dismantled. Neither claim will stand close scrutiny.

Mandrou does recognize some of the restraints on the development of new forces, observing the way in which the bourgeoisie tended to accept the values of the nobility and noting how the humanist fervour of the early sixteenth century was "damped up" by religious preoccupations. Also recorded is the fact that most of the population lived in an unchanging world, imprisoned by technical backwardness and their own illiteracy, surviving on the margin of subsistence and hardly ever moving more than a few kilometres from their natal village. Yet, somehow the importance of these dominant features of French life for the collective consciousness, and their implications for the author's view of its modernity, get lost in his enthusiasm for the printed word and his fascination with the mobile groups of the population—traders, vagrants, refugees, pilgrims—and everything, in short, which was dynamic rather than static.

Only in the first part of the book are we made fully aware of the mental divide which cuts our own age off from that of Henri IV. Here we are reminded that the principal preoccupations were with food and clothing, that malnutrition, the cold and the dark were constant factors in determining attitudes. There is a particularly delightful passage about the primacy of hearing and touch and the secondary role played by sight in determining responses to the environment. Yet Mandrou's "average Frenchman", even in his better moments, is a skeleton-like figure without flesh or blood and with little ability to speak for himself.

Professor Davis's Fronchmen, on the other hand, do speak for themselves and the price is abundantly clear that Mandrou's socio-historical model is badly in need of adjustment. We meet urban artisans, women of all ranks, and the people of the countryside; we learn what artisans thought about their masters; how contemporaries viewed the role of women and how women themselves were affected by religious change; we join the people at play and accompany them through the unavoidable bouts of collective violence. The world opened up by the author's erudition is alive; yet its highly traditional character stands in sharp contrast to the modernity of Mandrou's conception. The rhythms of life were those of an underdeveloped agrarian economy, governed by the cycle of the seasons, of religious and sacrilegious celebrations in which fertility rites and holy rites remained wedded to each other. It was a hierarchic and ordered world; even its violence—the populace employed quasi-judicial forms and pseudo-religious rites in order to preserve the integrity of the community within the body politic. Similarly, charivaris were employed to maintain the customs of the village, ensure its biological continuity, and good order within the households that composed it. Even the comic inversion of sex roles, which so entertained the crowds on carnival day, and which momentarily allowed women to escape their subordinate position could, by a process of clarification, reinforce the status quo. Yet Davis does not accept the view that the sole function of festivities was to serve as an escape valve and to sustain traditional structures. Carnivals could become a vehicle for political criticism, even an occasion for rebellion; the unruly woman could get out of hand and encourage insurbordination.

Her capacity to grasp the contradictory facets of particular social groups or phenomena and through them to illuminate large problems is nowhere better displayed than in her treatment of the interaction of urban and religious movements. In a brilliant opening essay, "Strikes and Salvation at Lyon" we see how the reformed church, by insisting on "good police" in all spheres, forfeited the allegiance of the printworkers and pushed them back into the Roman Catholic fold. Perhaps the clergy treated literate artisans with a certain mistrust but at least they never invoked sanctions against strikers or interfered in their pleasures! As an example of how to tackle the relationship between religion and class this essay can hardly be bettered.

Davis also dispenses impressively with the view (as expressed by Mandrou) that women found in the Protestant church a means of liberation from a limited social and domestic life. In the first place they led lives which were far from inactive; secondly, whilst the reformed church offered women a measure of equality—they were allowed to sing in church and their husbands could be hauled before the consistory for beating them—it did not abolish male domination. At best women were assimilated into a male world; at worst the benefits of the pluralist Catholic church with its female saints and separate religious organization were lost to women who thus may have become even more vulnerable in other spheres.

"In a sense", suggests Mandrou, "the mental conjecture is the work of the *avant-garde* . . . at least so long as there is not too great a disparity between the *avant-garde* and the majority." It is difficult not to feel on the basis of Davis's contribution that he has seriously underestimated this disparity in the sixteenth century, and that she has more accurately depicted the structures and ethos of a society remote from our own. Yet her model is not a static one. A rare blend of historical scholarship and imagination enables her to expose the tensions within the body politic and the mechanisms of change. For many these essays will be an exciting and informative introduction to a new world which has all too often come down to us in an idealized form; as she observes, it is a paradox that the more the intellectual elite wished to share the speech forms and heritage of the people the less they were able to grasp the concrete particularity and order of popular culture". This cannot be said of Professor Davis.

David Parker

The canal community

The Canal Boatmen, 1760-1914
by Harry Hanson
Manchester University Press, £9.00
ISBN 0 7190 0575 3

Affluent Victorians would have been scandalized had they been informed that the boatmen and bargees who piled their funky hauls for them were neither more nor less dissolute than the mass of working people. But this is the finding presented with exemplary detail and formidable statistical documentation both from central and, even more revealingly, from hitherto untapped local sources, that is presented in Harry Hanson's *The Canal Boatmen*. The book might well have been retitled "Social Problems" for it is about a total national community—boatwomen and boatchildren as well as boatmen—their social relations, their low standards of living and their educational aimlessness. Culturally, the unbelievably isolated families we generate are as alien as that depicted by their most assiduous would-be "saviour", the indefatigable publicist and reformer, George Smith of Coalville. Few outsiders ventured into their canal-side inns or decoded their argot; blasphemies, shanties and dances and it was this lack of first-hand knowledge, together with a classically lurid and scandalous murder of a passenger in 1839, which fed philanthropic fantasies of violence, rampant promiscuity and alcoholism.

Through a careful evaluation of descriptive evidence as well as an analysis of the actual as opposed to the mainly propagandistic figures employed by the reformers, Hanson arrives at a less highly coloured but, in historical terms, more persuasive balance. The boatmen drank heavily, but not more so than the great majority in an intemperate age. They lived in closely crowded cabins but were probably no more cramped towards the end of a period of exceptional levels of overcrowding in the Victorian middle classes than the slum-dwellers of London or Leeds. And they were less susceptible to infectious disease than comparable occupational groups on land: both infant mortality and the death of a mother following childbirth appear to have been unusually rare.

The historical redemption of the boat people, as well as of other comparable sub-groups, within the "residuum" of nineteenth-century society raises important questions in the realms of ideology and social control. It is, for example, essential to discuss the process by which the middle class concept of "decency" was passed down to and accepted by the working class.

Although he does not tackle this kind of issue, Hanson has never before provided us with a detailed and well-written piece of social history which deserves a wider readership than its price will allow.

Bill Luckin

Dissonance in society

Society in Crisis: France in the Sixteenth Century
by J. H. M. Salmon
Benn, £12.50
ISBN 0 510 26351 8

Students and scholars sigh with relief when the holocaust of civil war in France in the second half of the sixteenth century is over. The indecipherable political intrigues, the challenged political reputations, the plot and counter-plot, tax historians' techniques and patience. Contemporaries do not always help. The great diarists of the sixteenth century, l'Estoile or Pasquier, talk of Paris and the court, and not always as impartially as might appear. Others like Jacques Gaches, a dispassionate Protestant, describe laconically the guerrilla warfare around them, giving only tantalising glimpses of material for social historians.

Where historians have ill-provided and contemporaries do not lead the way, Professor Salmon and his publishers have done us a service in the aptly illustrated *Society in Crisis: France in the Sixteenth Century*. Instead of the "punch and judy" show of court politics he provides in the first section a survey of the underlying dissonances of this society: how political clientage had become an established fact; how the repeopling of France after 1450 created unhappy problems in an ill-adjusted economy, dividing the village and reshaping the seigneuries, bastions of stability at a local level; how the towns were even more prey to the problems of inflation. Self-conscious mercantile groups found bourgeois status did not always lead them to the sources of power, and felt frustrated in a *société bloquée*, feelings partly self-induced, but none the less real for that. The crown did not help. The rapid expansion of its nominal income made its authority more brittle and demanding, and ultimately less persuasive. The elite group upon which the crown's authority had rested had fragmented, while profit and ambition had created groups of men of the robe knocking on the door of privilege. Since the crown held that door open, the older-established nobility of the sword had to accommodate their skills, wealth and background. The church was left less-protected. All these many pressures led to the questioning of the monarchy.

The remainder of the book outlines the political manifestations these tensions produced and the solutions they proposed. He deals with the Huguenots (who are credited by events from after every serious peach the Catholic League, which sor Salmon describes as from the chrysalis of 1585 a metamorphosis at the Blois in 1588, to a fully-fl royal movement. Salmon analysis is judicious, though cuted, dispassionate, clear cise. I wonder at some emphases (was the conc Bologna so important?) gaps worry me (such as the But the picture is substan presented by, for instance *at la Bourgogne* in 1937, Drouot's tentative sugge main surprisingly unsubs a sign of the lack of in sixteenth century Fren history until recently. T period, Salmon's diffi crease immeasurably. W little about the crown's put its armies together 1560s or how the Huguen reacted to Condé's camp who attended the Pronun cal assemblies in the 1580s, for example, attempts to fill some of th his chapter on the radica in Paris is acute, the co peasant rebellions in the compares interestingly w Bercé's recent treatment.

Salmon's belief the solidified society of the *régime* emerged directly sectarian conflicts of the century is hard to accept seventeenth century they bered the sixteenth century. The Huguenots could not their betrayal in 1572. Leag ories survived, not merely contented *dévots* plotting expurgated Bourbon version *Satyre Menippée*." The pa of Toulouse in 1633 w lieu of another league. The *diants* of the cardinal vowed their positions to Henri IV as versions to Henri IV as stage, in part; and no hard they tried to dilute social ascension was large plished during the wars the lid of the crucible, shown us the challenge of social history in periods of crisis, enabling us to measure of the revealing compromises between the sixteenth century that which succeeded it.

Mark Greengrass

Smiths of all sorts

Masters and Men in the West Midland Metalware Trades before the Industrial Revolution
by M. B. Rowlands
Manchester University Press, £8.00
ISBN 0 7190 0582 5

Dr Rowlands's book deals with the western parishes of the metalware region and provides a useful complement to W. H. B. Court's pioneering study of Birmingham and its surroundings published almost forty years ago. *Masters and Men* is a short, well-researched and carefully organized work and is the latest addition to the impressive collection of books on regional economic and social history issued by Manchester University Press. Working from business records, deeds, family papers, probate inventories and newspapers, Dr Rowlands is able to provide not just a description of the technology and organization of the metalware trades but an analysis of their socioeconomic structures. There is analysis, too, of the dynamics of change in the eighteenth century associated with the development of new and highly competitive fashion trades, larger workshops, (technological) innovations, and the emergence of a small number of gentleman manufacturers.

Most of the book, however, concerns the seventeenth and early eighteenth centuries and the way in which industry fitted into the framework of a basically rural economy. Relatively populous, weakly manufactured, and with a fragmented pattern of landholding, the West Midlands provided a conducive setting for petal-cycle industry. (Agricultural and industrial occupations were commonly combined: about three quarters of the scythesmiths and two-thirds of the nailers rifled by Rowlands were employed husbandry. Nail-making was sonal activity which stopped vest time.

One point which emerges takably is the family ramifica industry in this period. The unit was the basis of production in the trades. Necessary capital came from within families were handed down from son, and dynasties of nailers and other craftsmen established. In different families unit was equally essential the ironmasters and Capital accumulation, ments and trading networks quently rested on a nexus relationships, reinforced marriage and religion.

Unavoidably, no doubt, lands has rather more masters than on the workmen selves, but it is the succes of the Crowley and Foley which catch the eye; the pages on the ironmongers the core of the book. Dr Rowlands rightly emphasizes the independence of the and draws attention eighteenth-century wage But possibly at times he gives her too optimistic a picture conditions in the metalware and she perhaps exaggerates workmen's bargaining position vis their employers. Her sources at her disposal, she has succeeded in re ing not only the variety in the West Midland metal tricts but also the great workers, with their different levels of

R. C. Richardson

Firm theory

Theory of Profits
by Adrian Wood
Cambridge University Press, £4.90
ISBN 0 521 20768 1

The debate over the "new theories of the firm" which flourished in the 1960s will undoubtedly be revived by this ambitious new book by Adrian Wood. Not only does Wood reformulate the theory of the firm in a comprehensive manner, but also he attempts to expand his model of corporate financial decision making into a model of income distribution in the economy as a whole—hence his title *A Theory of Profits*. Thus he enters that other arena of theoretical controversy, the theory of distribution, armed with an approach which stems in its fundamentals from ideas pioneered by Nicholas Kaldor. Yet the micro and macroeconomic sections of his analysis are bound together by a single principle: "that the amount of profits which the firm sets out to earn is determined by the amount of investment that it plans to undertake" and hence that "the share of profits is determined by the need to generate the right amount of cash to finance company sector investment, the extent of which depends on the rate of growth of output . . .". Nonetheless, it will prove convenient to consider separately his theories of the firm and of the economy as a whole before attempting to evaluate the entire enterprise.

The controversies over the significance of the new theories of the firm, which, in the United Kingdom, began with Marris's book *The Economics of Managerial Capitalism* petered out in a sterile *a priori* debate as to whether firms maximize growth or profits, with very little attention having been paid to the fact that this question was, in itself, new. The novelty of the new theories lay in their view of the firm as an essentially financial institution, pursuing goals defined within the context of financial variables, rather than as that part of the neoclassical theory of competitive value, by which, in the light of given relative prices, decisions on the quantities of commodities to be produced and the manner in which production is to take place are taken, without reference to financial considerations. Adrian Wood makes this essential separation clear. In a series of well constructed and persuasive arguments, for which he unfortunately provides no empirical backing, he develops a model of the relations between profitability, new issues, debt and the need for financial reserves, and the overall financial and real activities of corporations.

He dispenses with the "takeover constraint" used by Marris as a limitation on the expansion of external finance (debentures and new issue) and replaces it with the proposition that given the prevailing behaviour and expectations of shareholders, financial markets and management, external finance may be described as a function of profits. So given the firm's retention ratio the supply of finance for any particular rate of expansion is a function of the mark-up of profit in the value of unit output. The demand for finance depends upon the view which the firm takes as to the relation between its pricing policy, its costs (including selling costs), the amount of investment required per unit output and the expected behaviour of its competitors. Adrian Wood synthesizes the complex interrelations of those variables into a single function relating mark-up to the investment coefficient and the rate of growth. The demand and supply functions for finance can then be combined to determine the sustainable combinations of growth rate and mark-up for particular values of the investment coefficient, and, given the hypothesis that firms attempt to maximize growth, the "best" combination of the three variables.

At the macroeconomic level the demand for finance function must be dispensed with since it is a partial equilibrium construction. However, Adrian Wood argues that the supply of finance function may be aggregated to provide the relation between the sources of finance and the growth of corporate sector output as a whole. This finance function, relating the average mark-up of the corporate sector to the growth rate of that sector via the average retention ratio, external finance ratio and so on, becomes the core of the theory of distribution in the economy as a whole (assuming for simplicity that all output is produced by the corporate sector), for Wood chooses to treat the rate of growth of the corporate sector as an autonomous variable, determined by the state. He refers to the growth rate so determined as the "warranted" or "long-run equilibrium" rate of growth. Given the growth rate and the financial ratios relating the supply of finance to the average mark-up, the latter is the only unknown in the single financial supply equation and is hence determined. Complications concerning taxation, multi-nationals corporations and the influence of other sectors are introduced but they do not affect the underlying structure of the model.

Adrian Wood's theory of the firm amounts to a sophisticated reworking of Marris's theory. Like Marris's model the central thesis is untestable, for not only is there a formidable identification problem in distinguishing financial demand and supply functions, but also the demand function must be related to the *expectations* of the managers concerning future demands, the behaviour of competitors, etc, and hence this is a purely hypothetical function only one point of which can be observed.

This macroeconomic model of distribution raises a number of problems. Despite Wood's puzzling protestations to the contrary this model is exactly the same as Kaldor's famous model which states that the share of profits in the economy is determined by the share of investment and the propensities of capitalists and workers to save (Wood's model characterises the saving propensity out of profits as the retention ratio and the savings of "workers" as "external finance"). It shares with Kaldor's model the fundamental weakness of being unable to define causation with any confidence. The aggregate finance required will equal total finance supplied is as much an identity as savings equals investment—the question is which determines which? As is well known the problem with Kaldor's model is that to maintain the Keynesian proposition that savings are determined by investment he had to make the very un-Keynesian assumption that the level of output is independent of investment if his distribution theory was to be anything other than an identity.

Adrian Wood tackles this problem by taking the growth rate and, to all intents and purposes, the investment coefficient as their values. Fixing the share of investment in total product independently of the multiplier. The distribution of income is therefore the only "slack" variable in the model which can adjust to equate aggregate demand and aggregate supply. Hence businessmen do not "choose" their mark-up in any meaningful sense. Given the behavioural characteristics of individuals, firms and money markets, which govern the manner in which investment is financed, there can only be one value of the mark-up (assuming a single-valued finance function) which is consistent with the *autonomously* determined rate of growth. It is difficult to see the relation between this construction and the real world in which the rate of corporate growth is largely determined by the decisions of corporations and their competitors, domestic and international, and is not solely fixed exogenously by a *deus ex machina* labelled "the state".

John Eatwell

Human capital

The Economics of Education
by Elchanan Cohn
Wiley, £7.35
ISBN 08410 1576

Each night we can see on television reports from Washington or marches in Lisbon, yet the academic community remains remarkably culture bound. None more so than American economists. Here we have a typical all-inclusive undergraduate text on *The Economics of Education*, firmly in the human capital tradition. It begins with an account of the evolution of the human capital approach in economic theory, describes Denison and Schultz's work of 15 years ago on the contribution of education to economic growth, discusses rate of return and cost benefit analysis, and ends with the regulation chapters on the finance of education and educational planning which economists find so boring and write so badly about.

What strikes me most forcibly about the book is the almost total absence of any perspective outside the United States. Virtually all the references are to American work. The only comparative figures on education expenditure date back to 1960, for which there is no excuse as much more recent comparable data exists. The account of the finance of education is entirely concerned with the United States. Yet it is not as if we can examine the finance of education in an international context that it begins to be so interesting. Systems vary from the almost totally centrally funded to the largely locally supported. Why? What difference does it make? Who gains? Who loses? Where does power lie? There are few answers yet but the questions do not arise from this kind of single country description. If you want the human capital approach as an undergraduate, it is done more readably and drawing on a much more catholic set of sources in Mark Blaug's book, *An Introduction to the Economics of Education*.

Nevertheless, the book is clearly written with a good survey of input-output studies in education and a sound chapter on the costs of education in the United States. I have one reservation. Cohn tries to produce a constant price time series of per pupil expenditures back to 1900 in the United States—a difficult but a very worthwhile thing to do. However, he adjusts the historic costs to take full account of the rising levels of teachers' salaries. The reason, he argues, is that schools are forced to buy teachers at this going price. But if salaries of teachers are rising faster than other incomes, which seemed to be the case in the United States, is not the quality of recruit likely to rise? Was this the case? The issue of quality is not explored. There is another whole chapter on the history of teachers' salary differentials, a subject which has been neglected by economists, and indeed I cannot think of another textbook that covers the area as well.

For the rest it is a dated book. It was written just at the wrong time, for there is nothing here that reflects the more recent attacks on the human capital model. There is nothing about the recent theoretical elaboration of the idea that high earnings result from education's selective function, not its capacity to improve an individual's productive capacity. Nothing here about Christopher Jencks and inequality and very little, indeed, about income distribution at all. From time to time we are reminded that education may have redistributional consequences but it is never treated as more than a peripheral issue. The regressive income distribution consequences of public subsidies to higher education are relegated to a footnote on the Hanson-Weisbrod-Pechman debate about Californian experience. There is nothing here on the Jencks voucher experiment either.

Finally, criticisms of the human capital approach are never taken seriously. The author says, as a tailpiece to a whole chapter on the rate of return approach, "it is only fair to provide some space for some of the criticisms voiced at the type of analyses outlined above." Some self-criticism is certainly in order. . . . At least some of the British literature does provide that, and on the whole it is better written too.

Howard Gleinerster

Economist's ideas

Smith, Ricardo, Marx
by Claudio Napoleoni
translated by J. M. A. Gee
Blackwell, £5.00
ISBN 0 631 16410 3

Professor Napoleoni's book falls into two parts of similar lengths. The first is a translation by J. M. A. Gee of an essay, originally published in Italian, on certain aspects of the history of economic thought. Smith, Ricardo and Marx are the protagonists, with the Physiocrats and Malthus playing supporting roles. The second part comprises extracts from the works of Quesnay, Smith and Ricardo.

The first part is not a comprehensive review of the economic thought of the writers being studied, but a review of a limited, but vitally important section of their ideas. The analysis is from Marx's standpoint, whose work is used to integrate the discussion and to demonstrate how some of the weaknesses Napoleoni uncovers in Smith and Ricardo may be eliminated. The key to the analysis lies in different interpretations of the labour theory of value. Confused interpretations at the hands of the classical economists explain their failure to solve major problems, two in particular. To the first, the theory of crises in capitalism, Napoleoni admits that even Marx did not provide a full solution, but only all the elements needed for one To the second problem, which occupies much of the essay—the question of the origins of rent and profit—Marx is held to have provided a satisfactory solution. The problem, and its solution, is traced to Smith and to his distinction between labour-embodied and labour-commanded explanations of value, then through Ricardo to Marx.

The resolution of the problem may be accepted within the confines of the Marxist analysis, but, not surprisingly, Napoleoni tries to do more than merely demonstrate possible ways in which the confusions left by Smith and Ricardo were removed by Marx. The evolution of thought is claimed to be the outcome of changes in the social environment, which, in the words of the translator, "necessarily" led to changes in economic theory. This claim is less convincingly demonstrated. As is to be expected, the uniqueness of the social relationships from which a theoretical position may be expected is emphasized: ". . . exchange without capital is inconceivable . . . abstract labour is that which produces exchange value only under unique social, that is capitalistic, conditions." But that is as far as the links to the social conditions which are supposed to have produced the economic theory ever gets. The weakness in the historical background is obvious. Conflicts, especially class conflicts, are assumed to exist in society, and theoretical positions which may justify them are highlighted, but the reality of the historical suppositions are rarely evaluated. The same lack of realism is not confined only to the past. It appears at the end of the essay in a tantalizingly brief discussion of the error of identifying socialism with planning. Planning in the form in which it has historically occurred" may well deprive labour of its immediately social character as much as under capitalism, but "the form in which it has historically occurred" is left unexplained.

Napoleoni leaves the reader with a good explanation of a possible reconciliation by Marx of the intellectual weaknesses in Smith and Ricardo, but to hold that in as between embodied and labour-commanded explanations of value, then through Ricardo to Marx.

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R. H. Campbell

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Longman

BOOKS

A straying philosopher

The Early Economic Writings of Alfred Marshall, 1867-1890, volumes 1 and 2
edited and introduced by J. K. Whitaker
Macmillan for the Royal Economic Society. £15.00 per volume
SBN 333 17130 6 and 17817 3

These handsome volumes are essential companions for Guillebaud's variorum edition of the *Principles*. Marshall was 48 when the *Principles* appeared; its 750 pages conveyed an impression of such mastery and maturity as to command agreement from its readers. Upon his curious amalgam of Ricardo and Mill with marginalism and empirical observation students of economics were to be nurtured for the next fifty years. The earlier writers were thereby made redundant, and Jevons, Edgeworth and Wicksteed allocated minor roles, while no one bothered with Menger or Walras.

This delay in getting into print has always made it difficult to assess Marshall's contribution to the marginal doctrine. We depended largely on his own dicta, made at much later dates, to determine what he was thinking or saying in 1868, when he became college lecturer in moral sciences at St. John's, Cambridge, and in the 1870s when Jevons, Menger and Walras unveiled their theories. His own comments suggest that he owed little to that marginal trio but had worked his system out for himself from the work of Mill, Cournot and von Thünen.

Now Professor Whitaker has solved the mystery. His findings are based on an examination of Marshall's papers, now deposited in the Marshall Library in Cambridge. It appears that Marshall's ideas were formulated much more slowly than his later memory suggested.

Alfred Marshall in 1892, when he was 50.

In a letter of 1900 to J. B. Clark he remarked that his wages doctrine had been assembled in the late 1860s, though in a letter to Professor Foxwell written 11 years before, his claims are more modest. Whitaker presents us with material by which we may decide for ourselves: a series of manuscripts written between 1869 and 1873.

An essay on wages is full of interesting ideas: for instance, that a fall in the rate of profit may cause a rise in the rate of accumulation, "Notably a man often lays by capital with the object of securing to his family an income of a certain amount: and the lower the rate of profits and therefore of interest, the more he will have to save in order to do this." But it plainly predates the marginal productivity doctrine and is an extension and refinement of Mill. On the other hand, the essay on value, has a distinctly modern tone, with curves and mathematical theorems that could be fitted unnoticed into the modern textbooks (and often are).

Volume one contains Whitaker's study of the evolution of Marshall's thought and writings between 1867 and 1890 and his early essays. Volume two contains surviving portions of a manuscript on international trade, some of which had been printed by Sidgwick for private circulation in 1879, 100 pages of miscellaneous notes, and a final 50 pages with four pieces on wider issues.

These last are of particular interest for an understanding of Marshall's ideology. Nowadays we begin training our economists at the age of 16, so that they are lucky if they have escaped permanent intellectual damage by the time they graduate. Marshall turned to economics only after he had graduated, and then approached it via metaphysics, psychology and ethics. "I taught economics because Pearson did not wish it but repelled with indignation the suggestion that I was an economist: 'I am a philosopher straying in a foreign land: I will go home soon.'"

He was in no hurry to specialize and records that about 1871-72, in his thirtieth year, he was still debating whether to give his life to economics or psychology. "I spent a year in doubt: always preferring psychology for the pleasures of the chase; but economics grew and grew in practical urgency, not so much in relation to the growth of wealth as to the quality of life; and I settled down to it." One result, as Whitaker remarks, was that Marshall remained aware of the broader context of his subject. "In particular, the boundary between political economy and ethics always remained, not so much blurred . . . as disregarded."

Ethics play a dual role in Marshall's work: as aspects of the character of people in their economic activities (and differing between the English and the Americans), and, because they can be expected to change in systematic ways, as an integral part of a *positive* theory of socioeconomic change—"a preliminary to that understanding of the general laws of evolution of human character, viewed by Marshall as the ultimate goal of social change".

Whitaker has done a signal service by showing how the non-economic ingredients were blended with the mathematical and the economic to create the Marshallian system. Subsequent economists lost interest in the evolution of human character, thereby ensuring their continued bafflement by the turn of economic events.

Guy Routh

Economics from Oxford

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Andrea Boltho

This book describes and discusses Japan's exceptional economic growth from 1953 to 1973. The author analyses this growth record, compares it to the performance of other major countries, and examines the factors which contributed to it. In conclusion he looks at the problems Japan is now facing and the changes that are likely to occur in the future. £5 paper covers £2.75

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Inspection copies of these books are available to lecturers wishing to consider them for adoption as required texts. Please write to the University Promotion Section, Oxford University Press (THES), Ely House, 37 Dover Street, London W1X 4AH.

Reflecting schisms

Modern Microeconomics
by A. Koutsoyiannis
Macmillan, £14.50 and £6.95
SBN 333 17847 5 and 18285 5

Microeconomics: A Modern Treatment
by R. Shone
Macmillan, £9.95 and £5.95
SBN 333 14197 0 and 18019 4

The microeconomics textbook market is now so saturated that we are almost at the stage when every student can have a different textbook—and many of the products are so similar it would hardly matter if they did. Fortunately, Koutsoyiannis's *Modern Microeconomics* is not from the same mould. It is good enough and different enough to warrant widespread adoption.

The claim to modernity in the title is well founded and is firmly reflected in the book's contents. The traditional neo-classical approach to the theory of the firm and the theory of costs, which still finds widespread favour in much economics teaching, is subjected to rigorous criticism and to empirical testing. Koutsoyiannis sees economics as a science mainly in the sense that it should question, experiment and adequately test its assumptions. Theory should accurately reflect real-world behaviour wherever possible and not just be logical, consistent internally.

Indeed, this "real world" philosophy, about one-third of *Modern Microeconomics* is devoted to more recent approaches to how firms behave, approaches which in general reject the traditional view that maximization of profits is the sole and over-riding concern of industrial enterprises. With this emphasis on more recent theories of the firm and with its more general emphasis on markets as being dominated by a few large firms rather than by many small ones, *Modern Microeconomics* makes a worthwhile departure from the format of standard microeconomics texts.

Content, style and academic level combine to make this book that is well aimed at a large market—second and third-year basic microeconomics courses for specialist economists and for joint honours students.

By an odd coincidence, R. Shone's book has an almost identical title but that, and the fact that they are both published by Macmillan, are about the only things which the two texts have in common. It would be difficult to find two other books which, by title at least, claim to be concerned with the same area of the same subject—and which are so dissimilar. To say this is not to imply criticism of either: their differences merely reflect a schism in current economic thought. Koutsoyiannis's text reflects the work of those who would reject many of the traditional economists' assumptions and who are building new models which they feel more accurately reflect reality. Shone's text, by contrast, reflects the views of those who prefer to update rather than to replace the traditional approach—it is in this sense that his text can claim to be modern. It is set in the mainstream of the so-called "high theory" approach to microeconomics.

Much of the time firms and individuals are blessed with perfect knowledge—what happens is exactly what they expected to happen. Firms aim to maximize profits and normally sufficient assumptions are made to enable them always to succeed. Production processes do not exhibit economies of scale and so big firms do not have an inherent economic advantage which allows them to become bigger and their product cheaper. We are very much in the unreal world of neo-classical theory. The modern approach to this, typified by Shone, is to develop and expand the models using a more rigorous methodology. Extensive use is made of modern mathematics to proceed in precise logical steps from basic axioms to conclusions. Great emphasis is placed on scientific methodology—much less on scientists' other prime concern which is experimentation and empirical testing to verify their basic assumptions. A further feature of the modern approach to this area of economics is to emphasize a "general equilibrium" approach, ie to derive the effects of individuals' behaviour on the economy as a whole.

Shone's book is eminently suitable to be used as a text for the advanced theory and mathematical economics type of undergraduate course for which it was primarily intended. Reading it is heavy-going but given the subject matter and level of treatment this really is inevitable.

C. J. Hawkins

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nomists, accountants, business- government officials and yers are all concerned with fix- or controlling prices at levels ch cover costs, and induce sufficit investment without permitting er inefficiency or excess profits. decisions relate to prices and stment and the emphasis on sions keeps the objectives of the lysis well to the fore. This is portant because much of the inter- ies in the analysis of the pattern costs through time, which, in turn, ends upon the future pattern of es. Thus, the objective is prices ch reflect costs: but, costs at time depend upon future prices; y cannot be determined without and the two are not only inex- ably intertwined, but also hard forecast in dynamic industries.

This book is an admirable contri- tion to the growing literature on analysis of costs, prices and stment in dynamic conditions. simple static models have con- ded far too much attention and r limitations have too often been ored; the result has been a he assumption that it is quite y to assess costs, determine pro- prices and to assess the profit- ity of investments. This is very from the case. The core of the k is not new; not only did Sir ert Shone expound the basic dial in the late 1960s and publish in 1971, but there is now a good of theoretical work, particu- y that of Ralph Turvey, on the e relationships between price investment decisions and the blems of allocation of overheads ugh time. The difficulties stem m the dynamic problems of in- flation, product cycles and obsolescence.

The importance of this book lies in the fact that in spite of the basic theoretical work which has been done, there is still a wide gulf between that work and both the general level of understanding of these problems and much of today's practice. Sir Robert has written a clear and forceful book—"a study in applied economics"—and although he is right to deny that it is a *vade mecum*, it is indeed a practical guide to a range of problems.

The book is in two parts: first, the analysis of costs and the related pricing and investment decisions and second, the examination of pricing in the steel industry, with which Sir Robert was heavily involved. The second part puts the first into perspective and shows its importance. It also shows up some of the limitations of the simplifications chosen.

The basic model is one of diminishing profitability due to obsolescence in which the required price in the first year of operation depends upon the rate of obsolescence as well as the usual variables such as the required rate of return, etc. There are two major features of this type of analysis which distinguish it from static analysis. First, the current price depends upon expectations as opposed to the known static future, and thus, major economic and technical judgments must be incorporated. Second, the problems of calculation are considerable and involve iterations; these are—unless very simple examples are taken—extremely unwieldy without a computer. The resistance to inflation accounting and the difficulty of reaching agreement on the best approximations to use in that area are paralleled by the resistance to dynamic analysis of pricing and investment policies.

The limitations of Sir Robert Shone's simplified approach lie in the fact that it deals with long-run dynamic equilibrium and is not easily adapted to deal with the problems of fluctuating demand and short-term price fluctuations. He emphasizes the role of dynamic long-run marginal costs and underestimates the problems of price instability, including price discrimination, in an imperfect market. The British Steel Corporation's policy of using a 15 per cent real return on capital and a 15 per cent life of plant is sharply criticized and Sir Robert suggests that this gives a 1973 price for heavy sectors that is some £16 a ton (22 per cent) higher than the price based on his assumptions of an 8 per cent real return on capital and a 3.5 per cent rate of technical progress. If the BSC had, in fact, been operating under conditions of stable prices and steady demand in all markets, the criticisms would have been decisive; however, in view of the actual trading conditions described in the final chapter, the case is not proved. The BSC assumptions may be wrong and the methodology inadequate but that does not prove that they are doing the wrong thing; crude simplifications abound in this field and one of the unhappy results is that discussion is made even more difficult. The right result may, given sufficient understanding, be achieved by feeding the wrong figures into the wrong model!

The complexity of the problems, the degree of uncertainty and market instability make discussion more difficult than Sir Robert suggests. He makes a strong and cogent plea for greater stability of steel prices in the EEC, but that stability will be hard to achieve. Nevertheless, this book is a valuable contribution towards a more general understanding of pricing and investment policies in capital intensive industries in dynamic equilibrium.

P. Lesley Cook

Small may be beautiful after all

elopment Policy in Small tries
ted by Percy Selwyn
m Selwyn in association with the tute of Development Studies.
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e emergence of smaller and aller Third World nation states the post-independence era con- tes a paradox when set against contradictory long-term global and towards larger and larger ness and economic units. The ption which the western econo- has traditionally applied to states is whether or not they economically viable. Economic lity, argues one contributor to volume, is a standard derived the special political, economic cultural experience of advanced ern economies. Similarly, however that may mean, normally s a secondary role as a criterion separate existence, the drive for pendence among small states s reinforced by what Bernard ker in another essay refers to as the "ideology of extension". once a country has achieved ical independence there are g international pressures uring the maintenance of axis- boundaries. Given that small s do exist in the Third World, are likely to persist in the pre- international climate, do ral problems justifying a l treatment face them. Is development strategies? This the question to which the parti- ts of a recent conference in ford, organized by the Institute Development Studies, addressed elves. This volume, made up individual contributions on s of development in small s is its outcome. Reflecting objectives of the conference, all t have a strong policy-making bias in aid-giving reflects the higher import/GDP ratio in small countries, together with the practice of tying aid to imports. Aid requirements have not generally provided the basis for allocating aid on a bilateral basis. Taken at face value, the fact that small economies receive more aid *per capita* than large ones is an advantage rather than a disadvantage of small size. Indeed there is an undercurrent running through the book that small size may not be so disadvantageous economically after all. As Schaffer points out, the small country which keeps its options open can improve its bargaining power with its richer neighbours. And the most efficient way in which a rich country can obtain political support in the United Nations may be by concentrating aid in smaller countries.

At the industry level, the most frequently cited problem facing small economies is the narrowness of domestic markets. In this respect the paper by Selwyn on the location of industry in small countries which are peripheral to a region is of particular interest. Most of the literature relating to regional economics assumes that the region is part of a country. Selwyn argues instead that small countries may in fact be peripheral as national entities within a broad region—for example, the small countries of Southern Africa—and face all the problems of the periphery in attracting and promoting industrial development. Unfortunately the volume lacks a substantial typology of small economies, which would have required some attention to be paid to those very small economies such as Hongkong and Singapore, where, despite the constraints imposed by limited domestic markets, a policy of industrialization has been successfully pursued. Is there anything to be learned here for other small economies? And if not, why not?

Barbara Ingham

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BOOKS

A treatise on money

Money, Information and Uncertainty
by C. A. E. Goodhart
Macmillan, £6.95
SBN 333 16673 6

The title of Dr Goodhart's book gives some indication of where he places his emphasis but little idea of the breadth and compass of what is no less than a systematic treatise on money. At a time when books on money rapidly become out-of-date and when many make no attempt to cover all the main topics here is a unified treatment of the subject which is full of interest and original ideas. Even those who differ from Goodhart will be hard put to suggest a better guide to the subject for the graduate or undergraduate. For those already acquainted with the subject it will be a most valuable reference book.

As a monetary theorist with years of experience advising the Bank of England Goodhart is perfectly qualified to bring together theory and application, erudition and commonsense. For the most part he has placed himself so that he can be in touch with the advanced theorists and show the reader what they are doing, while at the same time keeping in view the institutionalists. Rather little theory is fully developed and displayed in the book which does not usually matter. The references to the literature are abundant and the author is unusually good at indicating the character of a theory and succinctly making its conclusions seem comprehensible and reasonable. The reader will need to refer elsewhere but he is given all the guidance that he will need.

Starting with a discussion of the role of money, which firmly emphasizes uncertainty and the absence of full inter-temporal equilibrium, the argument proceeds to the analysis of the demand for money by an individual or institution, transactions and speculative demand, and thence to the aggregate demand for money function. A very useful appendix to chapter three presents the outline results of 27 econometric studies of the demand for money. Chapter four is concerned with the term structure of interest rates and again presents the econometric findings in an appendix. The next three chapters deal with institutions, respectively companies, financial intermediaries and banks. Chapters eight and nine cover monetary policy, the quantity of money and open market operations. In chapter 10 there is a provocative discussion of unemployment, wealth effects and the distinction between "inside" and "outside" assets. The next chapter is devoted to inflation including the effect of expectations of inflation. Then follows a fuller discussion of monetary policy including the so-called question of the "optimum quantity of money" and the volume closes with discussion of the regional adjustment process and international monetary relations.

Goodhart is firmly of the view that monetary theory should be founded in an analysis of portfolio decisions in which money is only one of the many assets which it is open to the individual to hold. He acknowledges his debt to Tobin and the Yale school while extending the approach particularly with regard to the discussion of intermediaries. Such an approach might seem uncontroversial but it brings him into conflict with some established ideas. In particular, the practice of treating the quantity of money as determined by the application of a multiplier to the base of "high-powered money" comes under attack, being a proper behavioural view of the portfolio decisions of the banking system.

Understandably there is a wide difference of viewpoint between that of the monetarists whose theories sometimes seem to have an unclear behavioural basis, and the author has to report one claim that past money supply is an important statistical determinant of current income is well established for the United States, Japan and the same result does not hold for the United Kingdom. Naturally such finding does not establish that there is a simple causal link from money to subsequent income and one of the ingenious can even devise ways in which the causation might go in the opposite direction. However, as the author reasonably suggests, the onus of proof is on those who want to establish reverse causation.

Perhaps the book is weak on equilibrium and disequilibrium and the nature of Keynesian unemployment. Like many writers who have been influenced by Leijonhufvud Goodhart does not distinguish sufficiently between the Keynesian claims and his actual achievements. Again, while it is once exceedingly useful to have pointed out that wage cuts are followed by price cuts, and that to examine a model in which the level of prices is simply proportional to the level of wages, that model cannot be taken seriously as a representation of economic reality, the discussion of the question whether wealth effects serve to provide a full employment equilibrium for that model is not a little activity.

C. J. I.

Unstable commodities

Primary Commodity Control
by C. P. Brown
Oxford University Press, £11.45
ISBN 0 19 638246 7

Although over half of world trade in agricultural and mining products is between rich countries, primary commodities are of crucial importance to developing countries. Often the export earnings of individual countries may be derived almost entirely from sales of one or two commodities, which, with the major exception of rice and certain other food crops, are sold mainly to rich countries. Thus exports of a dozen commodities (excluding oil) generate about 80 per cent of the Third World's total foreign exchange earnings. Brown's book is concerned with attempts to reduce instability in these commodity markets. His approach is mainly theoretical, though a considerable amount of detail about individual producer/market conditions is introduced, and some information about commodity agreements is given to illustrate the operation of various control devices. The level of analysis is geared towards readers with no more than an elementary knowledge of economics, which leads to a danger of the explanatory power of simple economics being overstated, and particularly neglects the role of expectations and speculation. The deficiency is remedied to some extent in an excellent set of appendices, which describe econometric price models, control simulation exercises, and mathematical approaches to two-period analysis.

"Instability" refers to variations in prices and quantities, and to consequent changes in export earnings, producer income, government revenue, and so on; any of which may be the desired object of control. Thus a country with low foreign exchange reserves may seek to control export earnings, and price stabilization itself might be an objective if it was expected to increase consumer demand for the product.

Brown analyses in detail a wide variety of control devices, national and international. The choice of device will depend on the type of market involved (classified according to demand and supply elasticities, and whether the sources of instability are demand shifts or supply shifts), and on the objective(s) of control. Certain objectives cannot be achieved simultaneously by particular devices, and indeed a device which stabilizes one variable may destabilize others. Thus a buffer fund, which seeks to stabilize producer incomes by paying producers prices below the world price level in boom times, and above world price in adverse market conditions, may achieve its objective at the expense of destabilizing world prices (because producers produce less than before when world price is high, and more than before when it is low); and may also destabilize export earnings in a demand-shift market if demand is inelastic over the market price range. However, this problem can sometimes be avoided by combinations of devices.

The choice of control is, therefore, will depend very much on individual market conditions, as well as on the political reality that international agreements need to be acceptable to both consumers and producers. As a result much of Brown's analysis is taxonomic, and his conclusions rather agnostic. He often finds benefit analysis as a means of evaluating alternative schemes, but recognizes that many elements in the calculation will be difficult to quantify.

This book, presumably, is aimed mainly at politicians and government officials concerned with implementing commodity control schemes. Such readers may find the treatment will be extremely readable. Other readers, especially students, may regret that much of the information on individual commodity agreements is scattered throughout the book, perhaps as an appendix. It is also disappointing that, after a substantial gestation period of its own, the book has missed some of the discussion following the 1973 commodity price boom, as well as the same result does not hold for the United Kingdom. Naturally such finding does not establish that there is a simple causal link from money to subsequent income and one of the ingenious can even devise ways in which the causation might go in the opposite direction. However, as the author reasonably suggests, the onus of proof is on those who want to establish reverse causation.

Perhaps the book is weak on equilibrium and disequilibrium and the nature of Keynesian unemployment. Like many writers who have been influenced by Leijonhufvud Goodhart does not distinguish sufficiently between the Keynesian claims and his actual achievements. Again, while it is once exceedingly useful to have pointed out that wage cuts are followed by price cuts, and that to examine a model in which the level of prices is simply proportional to the level of wages, that model cannot be taken seriously as a representation of economic reality, the discussion of the question whether wealth effects serve to provide a full employment equilibrium for that model is not a little activity.

C. J.

Employment

Recent publications from the Institute of Economic Affairs include three dealing with employment. *Unemployment versus Inflation?* by Milton Friedman is an evaluation of the Phillips curve. *Full Employment at Any Price?* by F. A. Hayek includes the author's Nobel Memorial Prize lecture. *How Little Unemployment?* by John B. Wood is a microeconomic examination of the official statistics. All three cost £1.00 and are available from IEA, 2 Lord North Street, London SW1P 3LB.

Among this week's reviewers

C. J. Bliss is professor of economics at the University of Essex and has published Capital Theory and the Distribution of Income.

Meghnad Desai is author of Marxian Economic Theory and lectures in economics at the London School of Economics.

Howard Glennerster has written Social Service Budgets and Social Policy and is senior lecturer in social administration at the London School of Economics.

Mark Greengrass lectures in seventeenth-century French social history at the University of Sheffield.

Barbara Ingham is a lecturer in economics at the University of Salford.

H. B. Owen is professor of Christian doctrine at King's College London.

David Parker lectures in law at the University of Leeds.

Malcolm Quinlan is a lecturer in French studies at the University of Lancaster.

Guy Routh is at the University of Sussex and has written Occupation and Pay in Great Britain 1906-79 and The Origin of Economic Ideas. John Thoburn is currently writing a book on primary commodity exports and economic growth in developing countries and is a lecturer in economics at the University of Anglia.

Peter Winch has written The Idea of a Social Science and its Relation to Philosophy, Ethics and Religious Belief and is professor of philosophy at King's College London.

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L.I. Dawson,
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Official Fellow and Tutor in French

The successful candidate will be expected to teach French literature of the 16th and 17th centuries and, in general, to assist in the teaching of French in the College. The Fellow elected will be eligible to hold a university lectureship (C.U.F.). The successful candidate will be expected to take up the appointment on 1 October, 1976.

Further details may be obtained from The Master, St. Catherine's College, Oxford, to whom applications should be sent not later than 31 January 1976 and should be accompanied by a statement of the candidate's career and qualifications, together with the names of three persons to whom reference may be made.

BATH
THE UNIVERSITY
RESEARCH ASSISTANT
SCHOOL OF MANAGEMENT

Applications are invited for a two-year post within the Management Studies Group of the school. The successful applicant will be involved in one of the research projects being undertaken within the Group. Exceptionally a candidate may be given the opportunity to develop his/her own research programme provided that it is consistent with the objectives of the Group.

Preference will be given to graduates in Economics, Psychology, Operational Research or Statistics with a particular interest in applied research methodology.

Starting salary will be £3,972 per annum.

Further details and application forms for the Management Studies Group programme may be obtained from Mrs. Jean Tarry, Personnel Officer, University of Bath, Claverton Down, Bath, Avon BA2 7AY, quoting reference No. 76/3. The closing date will be 6th February 1976.

Universities continued

RHODES UNIVERSITY
Grahamstown
South Africa

Applications are invited for the post of

SENIOR LECTURER/LECTURER
in Electronics

for a period of five years in the first instance with effect from 1st April, 1976, or as soon as possible thereafter.

The post has been established in connection with the introduction of a course in electronics and telecommunications, leading to the Honours Degree in the Department of Physics. A knowledge of one or more of the following fields would be an advantage: information theory, random signals and noise, circuit theory, electromagnetic wave propagation, antennas, waveguides and microwave devices. Candidates with degrees in either Electrical Engineering or Physics will be considered.

The salary scales are:—

Senior Lecturer— R8 460 × 360 – 9 900 × 450—11 250 per annum

Lecturer— R6 300 × 300 – 9 180 per annum (*Note*: £1 sterling = approx. R1,79)

The initial salary will be determined according to qualifications and experience. A vacation savings bonus is also payable.

Further particulars and application forms may be obtained from the Registrar, Rhodes University, Grahamstown, 6140, South Africa, to whom completed applications, with copies of recent testimonials and a photograph, should be sent by 31st January, 1976.

ULSTER: THE NEW UNIVERSITY

PROFESSOR of EDUCATION

Applications are invited for a third Chair of Education following the appointment of Professor Malcolm Skilbeck as Director of the Australian National Curriculum Development Centre.

Candidates should preferably have a strong interest in Curriculum Development and the inservice training of teachers. Other specialisms complementary to Psychology of Education (Professor J. L. Nesbitt) and Philosophy of Education (Professor H. T. Sockett) would be considered. The appointment will date from 1st October, 1976.

There are 700 students registered in the Education Centre for Certificate, undergraduate, postgraduate and research programmes in Education. Research facilities include psychological and science-education laboratories, a T.V. studio and microteaching suites. Two major development projects, both externally funded, are in progress, and there is a regional Teachers' Centre on the University site.

Salary: Within the professorial range (with F.S.S.U./U.S.S.) (minimum £7,501) under review

Further particulars may be obtained from The Registrar, The New University of Ulster, Coleraine, Northern Ireland, BT52 1SA (quoting Ref: 75/113) to whom applications should be sent not later than 21st February, 1976.

AUSTRALIA
AUSTRALIAN NATIONAL UNIVERSITY
RESEARCH SCHOOL OF PACIFIC STUDIES

Applications are invited for appointment to the following: RESEARCH FELLOW: DEPARTMENT of PACIFIC and SOUTH-EAST ASIAN HISTORY (two posts).

Applications are invited from scholars with research in progress on any aspect of the history of the Pacific Islands, New Guinea and South-East Asia. Both positions are envisaged as short-term ones for two years. They are intended to enable scholars in this field to bring to completion a research project already commenced. A detailed outline of research plans as well as evidence of the applicant's previous work should be included with the application. The successful applicants will be expected to take up appointment not earlier than 1 August, 1976.

Further information may be obtained from the Head of the Department (Professor Gavan Daws), in the University. Closing date: 1 March, 1976.

Salary as Research Fellow will be in accordance with qualifications and experience within the range $A12,063 to $A16,195 per annum.

Other conditions: Reasonable travel expenses paid. Superannuation benefits are available.

The University reserves the right to make an appointment by invitation or, due to financial stringencies or some other sufficient reason, not to make an appointment at any time.

Prospective candidates should write to the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF, for further particulars before applying.

ABERDEEN
THE UNIVERSITY
LECTURESHIPS IN POLITICAL ECONOMY

Applications are invited for [illegible] posts, one requiring a teaching interest in econometrics. Other fields in which Department has teaching needs are microeconomic theory, operational research, applied aspects of macroeconomics, [illegible] economics, and applications are invited from candidates with other interests.

Salary on scale £3,174 to £6,446 with appropriate placing.

Further particulars from The Secretary, The University, Aberdeen, with whom applications (two copies) should be lodged by [illegible] 1976.

AUSTRALIA
THE UNIVERSITY
Adelaide

Applications are invited for the following appointments:

SENIOR LECTURER in ANATOMY and HISTOLOGY (ref. 7.3). A registrable medical qualification is desirable but not essential. Persons with an interest in gross and clinical anatomy are especially invited to apply. The appointment will be made as soon as the person concerned is able to assume duty. (16.3.76)

LECTURER in CIVIL ENGINEERING (ref. 7.5). It is preferred that applicants commence duties in the first half of 1976. They should be qualified to teach undergraduate and postgraduate courses in soil mechanics, and/or transportation, and to conduct research. The department offers exceptional opportunities for theoretical and experimental research. Detailed information about duties, facilities and current research is available from Professor Y. K. Cheung in the University. (As soon as possible.)

RESEARCH FELLOW in OBSTETRICS and GYNAECOLOGY. Duties will include the collaboration in research with clinical academic staff in projects in the field of reproductive endocrinology, and to teach in teaching programmes for science students. This appointment is for three years with the possibility of extension to a maximum of five years. (16.2.76)

SENIOR TEACHING FELLOW in GEOGRAPHY (ref. 7.4). Applicants should have recently completed a doctorate. Any field of human geography will be considered but particular interest in social or population geography would be an advantage. (15.3.76)

Salary Scales: Senior Lecturer $A16,195 [illegible]; Lecturer [illegible]; Research Fellow [illegible]; Senior Teaching Fellow [illegible].

Applications, in duplicate, giving particulars of age and marital status, details of academic record and experience, and the names and addresses of two referees, should be sent to the Registrar of the University of Adelaide, Box 498, Adelaide, South Australia 5001.

Further information available from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.

![UWIST]

UWIST

PROFESSORS

Applied Biology
Business Administration and Accountancy
(Accounting; Personnel; Industrial Relations; Public Administration; Marketing)
Pharmacy

DIRECTOR OF COMPUTING

Closing Date: 30th January 1976

Salaries: Professorial £8,049 or above

LECTURERS

Civil Engineering (Geotechnics)
Salary up to £4,602
Closing Date: 30th January 1976

Law (Property or Public)

Engineering Production
Salary up to £4,398

Optometry
Salary up to £4,194

Pharmacy (2) (Pharmacognosy) (Community Pharmacy)
Salary up to £4,194

TUTORIAL ASSISTANT
English

ASSISTANT LIBRARIANS (2)

Salary Scales:
Lecturers £3,174 to £6,446
Tutorial Assistant £2,766 to £3,174
Assistant Librarians £3,174 to £5,418

Closing Date: Unless specified, 13 February, 1976

Requests (quoting post and Ref. THES) for details and application forms to Personnel Section, UWIST, Cardiff CF1 3NU.

AUSTRALIA
AUSTRALIA NATIONAL UNIVERSITY
SCHOLARSHIPS FOR PH.D. DEGREE COURSE

Persons who hold, or expect to hold, a Bachelor degree with at least upper second-class honours or equivalent from a recognised university and who have a capacity for research, are invited to apply for Australian National University Ph.D. Scholarships, tenable over a wide range of subjects in the Humanities and the Physical, Medical, Chemical, Biological, Earth and Social Sciences. Scholarships are available in any of the departments or units of the Institute of Advanced Studies which consist of the Research Schools of Physical Sciences, Biological Sciences, Social Sciences, Pacific Sciences, Chemistry, Earth Sciences and the John Curtin School of Medical Research, or the School of General Studies (Faculties of Arts, Asian Studies, Economics, Law and Science), or in one of the University Centres.

Scholarship Benefits: The basic living allowance is $A4,360 per annum tax free with additional allowances for dependants. Return economy-standard air fares and some removal expenses are normally provided.

Tenure: Scholarships are normally available for three years and may be taken up at any time of the year.

Application forms and full particulars are available from the Academic Registrar, The Australian National University, P.O. Box 4, Canberra, A.C.T. 2601, Australia, or from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.

There is no set closing date, but applicants from outside Australia are advised to apply at least six months before they expect to be available to take up a scholarship if offered.

BIRMINGHAM
THE UNIVERSITY
DEPARTMENT OF ENGLISH LANGUAGE AND LITERATURE

Applications are invited for a LECTURESHIP in ENGLISH LITERATURE in the Department of English Language and Literature, from 1 October, 1976. The successful applicant will be expected to participate in the Department's teaching programme in post-Shakespearian periods of English literature. Research interests in the period 1800 to the present day would be particularly advantageous.

Salary on the lower part of the scale £3,174 to £6,446 plus superannuation.

Applications (six copies) naming three referees, should be sent by 7 February, 1976 to the Assistant Registrar (S), University of Birmingham, P.O. Box 363, Birmingham B15 2TT, from whom further particulars may be obtained.

AUSTRALIA
MURDOCH UNIVERSITY
Perth, Western Australia

Murdoch University, Western Australia's second university, admitted its first students in February 1975. The University is committed to taking a fresh approach to higher education, with the goal of responding directly to the conditions and needs of the late twentieth century. This is reflected in admission policies, organisational structures, programmes of study, philosophies of teaching and recruitment of staff.

The University is organised on a system of schools of study, with the Chairman of each school having both academic and administrative responsibility.

Applications are invited from suitably qualified persons for the following position which is to be taken up in July, 1976, or as soon thereafter as possible:

SCHOOL OF SOCIAL INQUIRY
(Chairman, Professor J. R. Rasor)
LECTURESHIP/SENIOR LECTURESHIP IN ECONOMICS
(Ref. UN 0387)

The economics programme is part of the School of Social Inquiry, which currently also embraces programmes in History, Peace and Conflict and Human Development. Emphasis in economics is upon Australian and world socio-economic problems and policies considered from a foundation of basic economic theory and its real world applications. Interdisciplinary teaching is encouraged and courses are offered to full-time, part-time and external students.

The successful applicant will be expected to take part in the early development of the economics programme at Murdoch. He will be required to teach core courses in economic theory to third year level initially and to develop courses in some field of specialisation. Courses which are yet to be developed include: mineral and resource economics, environmental economics, regional and urban economics, quantitative economics, social economics, fiscal and monetary economics, business studies and industrial relations.

Salary ranges: Lecturer, $A12,063 to $A16,195; Senior Lecturer, $A16,512 to $A19,193.

Appointments will normally be made at the lecturer level but in the case of an outstanding applicant consideration will be given to an appointment at the senior lecturer level.

Conditions of appointment include superannuation, similar to F.S.S.U., long service leave, assisted study leave, payment of fares to Perth for appointee and dependent family, removal and settling-in allowances and house purchase scheme.

Applications: Two complete sets of detailed applications, quoting the appropriate reference number, including full personal particulars, details of tertiary qualifications, career history with description of posts held, area of special competence and interest, research completed or currently being undertaken, personal views on teaching, membership of professional institutions or societies and positions of responsibility in these; list of relevant material published by the applicant, when available to take up appointment if offered and the names and addresses of three professional referees should reach the Personnel Officer, Murdoch University, Murdoch, Western Australia, 6153 by 6 February 1976.

Applicants resident in the United Kingdom, Europe or Africa at the time of application should also forward one further copy to the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.

Applicants should request three professional referees to write immediately, quoting the appropriate reference number, to the Personnel Officer, Murdoch University.

BELFAST
THE QUEEN'S UNIVERSITY
CHAIR OF SOCIAL AND PREVENTIVE MEDICINE

Applications are invited for the Chair of Social and Preventive Medicine (Joint Appointment with the Eastern Health and Social Services Board) from 1st October, 1976 or such other date as may be agreed. The Chair will be vacated on 30th September, 1976 on the retirement of Professor Pemberton. Applications should be received by 27th February, 1976.

Further particulars may be obtained from The Personnel Officer, The Queen's University of Belfast, BT7 1NN, Northern Ireland. (Please quote Ref: 76/THES).

BIRMINGHAM
THE UNIVERSITY
FACULTY OF MEDICINE AND DENTISTRY
CHAIR AND HEADSHIP OF THE DEPARTMENT OF MEDICAL MICROBIOLOGY

Applications are invited for the Chair and Headship of the newly established Department of Medical Microbiology. Appointment from a date to be arranged.

Salary in the clinical professorial range, maximum £10,680.

Further particulars obtainable from the Registrar, University of Birmingham, P.O. Box 363, Birmingham B15 2TT, to whom 12 copies of applications (one from overseas applicants) naming three referees, should be sent by March 1, 1976.

BRISTOL
THE UNIVERSITY
CHAIR OF ANCIENT HISTORY AND CLASSICAL ARCHAEOLOGY

The University proposes to make an appointment to the Chair of Ancient History and Classical Archaeology in the Department of Classics, which will become vacant on the retirement of Professor John Cook at the end of the present session in July, 1976.

Suitably qualified candidates are invited to submit applications including the names and addresses of three referees by [illegible] February, 1976 [illegible] from whom further particulars may be obtained [illegible] Bristol BS8 1TH.

AUSTRALIA
UNIVERSITY OF NEW SOUTH WALES
Sydney

SCHOOL OF SOCIAL WORK

AN IMPORTANT APPOINTMENT IN COMMUNITY WORK TEACHING AND RESEARCH

Community work is now a rapidly expanding field of social work practice in Australia, which must be matched by appropriate educational preparation. In this connection, the above school is offering a challenging and exciting job opportunity for the right person.

The appointee will take a major responsibility in the school for the further development of teaching and research in community work as a social work practice method. The school offers a four year B.S.W. degree, and two research degrees, the M.S.W. and Ph.D. It is located in Sydney, a city of about 3,000,000 people. The other Sydney-based school of social work is at the University of Sydney.

Applicants must possess professional social work qualifications and preferably have completed relevant doctoral studies. Community work experience and some previous teaching experience are essential. The position is available from July, 1976, and applicants should be willing to consider at least a three year appointment.

Salary: The appointment will be made in the Senior Lecturer/Lecturer range ($A16,512 to $A19,193/$A12,063 to $A16,195 per annum). Commencing salary according to qualifications and experience.

Further information may be obtained from Professor H. J. Lawrence, Head, School of Social Work, in the University.

For conditions of appointment and application forms write to Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.

Applications close 9 April, 1976.

BRITISH COLUMBIA
THE UNIVERSITY
DIRECTOR OF HOUSING AND FOOD SERVICE OPERATIONS

Plans and directs, according to predetermined policies, the operational, financial, personnel, and administrative activities of the University's Housing and Food Service organization. Applicants should possess a foundation in business principles plus extensive successful management and administrative experience in a large organization.

The University of British Columbia offers equal opportunity for employment to qualified male and female candidates. Consideration of citizenship will occur only subsequent to decisions on the quality of the applicants.

Appointment date and salary are negotiable. Inquiries should be directed to: The Chairman, Housing Director Selection Committee, Office of the Dean, Faculty of Science, The University of British Columbia, Vancouver, Canada V6T 1W5.

CAMBRIDGE
THE UNIVERSITY
LECTURESHIPS IN EDUCATION

Applications are invited for the following:

DEPARTMENTAL LECTURESHIP with qualifications in FRENCH to take office on April 1, 1976, or as soon as possible thereafter. Duties include courses on the teaching of French and Modern Languages and in another branch of educational studies, for example Comparative Education, in which the applicant has an interest and, preferably, a qualification. Recent school experience necessary and knowledge of Spanish and/or Italian an advantage.

Pensionable stipend of a Departmental Lecturer (under review) on a scale £3,174 to £5,314 a year with initial placing above the minimum where appropriate. Initial appointment for three years with reappointment possible for two further years. Maximum tenure five years.

UNIVERSITY LECTURESHIP with qualifications in ENGLISH, to take office from October 1, 1976. Duties include courses on the teaching of English and of Humanities and in another branch of educational studies in which the applicant has an interest and, preferably, a qualification. Applicants should have had experience of teaching English in schools.

Pensionable stipend for a University Lecturer (under review) on a scale £3,594 to £6,976 a year with initial placing above the minimum where appropriate. Appointment for three years in the first instance with possibility of reappointment to the retiring age.

Further particulars of both lectureships may be obtained from the Secretary of the Appointments Committee, Department of Education, 17 Brookside, Cambridge CB2 1JG, to whom applications (three copies), together with the names of not more than three referees should be sent not later than February 11, 1976. A grant is made towards removal expenses.

CAMBRIDGE
THE UNIVERSITY
SOCIAL AND POLITICAL SCIENCES COMMITTEE
UNIVERSITY ASSISTANT LECTURESHIP

Applications are invited for the above post. Candidates should have special interests in methods of social and/or social psychological research. The pensionable scale of stipend is expected to be £3,378–£4,194.

Candidates should send fifteen copies of their application together with the names of three referees, by 20 February 1976, to Dr. A. Giddens, [illegible], Mill Lane, Cambridge CB2 1RX, from whom further information can be obtained.

BUCKINGHAM
UNIVERSITY COLLEGE, BUCKINGHAM

LECTURER/SENIOR LECTURER in ENGLISH [illegible] School of History, English Literature and [illegible] [illegible] courses in [illegible] [illegible] qualifications [illegible] in English [illegible] 1750. [illegible] Particulars from [illegible] Buckingham, MK18 1EG by February 9.

EXETER
THE UNIVERSITY
DEPARTMENT OF [illegible]

Applications are invited for the post of LECTURER [illegible] CHOLOGY, tenable from April, 1976.

Placement will be on scale £3,174 to [illegible] annum.

Preference will be given to candidates with research interests in operant research and animal behaviour.

Further particulars obtained from the Establishment Officer (Staff), University, Northcote House, The Queen's Drive, Exeter EX4 4QJ, to whom applications (3 copies; overseas one copy) should be sent by [illegible] February, 1976. Please quote reference 1/103.

LONDON
IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY
COMPUTER [illegible] INFORMATION [illegible]

Applications are invited from candidates with [illegible] experience, [illegible] Higher Education [illegible] newly created post [illegible] logo administrative [illegible] salary scale £[illegible] plus £399 per annum London Allowance.

The Computer [illegible] Information Office [illegible] the Data Processing [illegible] liaison with administrative [illegible] tions and academic [illegible] ments in the development [illegible] plementation and [illegible] computerised [illegible] systems and a computer [illegible] information service.

Further particulars [illegible] Lloyd Davies, [illegible] Secretary, Imperial College of Science and Technology, London SW7 2AZ (01-589 5111 Extension [illegible]). Application forms [illegible] submitted by 6th [illegible] 1976.

KEELE
THE UNIVERSITY
LECTURESHIP [illegible]
DEPARTMENT OF [illegible]
NATIONAL RELATIONS

Applications [illegible] LECTURESHIP in INTERNATIONAL RELATIONS, [illegible] October 1, 1976, [illegible] scale £2,778 to [illegible] review), starting [illegible] dependent on [illegible] didate's age and [illegible].

Application forms and particulars from The [illegible] The University, Keele, ST5 5BG, to whom [illegible] forms should be [illegible] January 23, 1976.

LEICESTER
THE UNIVERSITY
DEPARTMENT OF ENGLISH

Applications are invited [illegible] LECTURESHIP in [illegible] MENT of ENGLISH [illegible] ates with special [illegible] twentieth-century [illegible] Literature.

Salary according [illegible] cations and experience [illegible] scale £3,174 to £6,446 with superannuation [illegible].

Further particulars [illegible] Registrar, to whom [illegible] on the forms provided [illegible] be sent by 14 February [illegible] quoting reference [illegible].

LONDON
THE UNIVERSITY
UNIVERSITY ENTRANCE AND SCHOOL EXAMINATIONS COUNCIL
GENERAL CERTIFICATE OF EDUCATION EXAMINATION

The Council invites applications for appointment [illegible] [illegible] IATOR in [illegible] DRAWING in the [illegible] mination with effect [illegible] August, 1976.

Applicants should [illegible] ates or hold appropriate [illegible] cations and be between [illegible] of 30 and 60. [illegible] experience and [illegible] G.C.E. Examining [illegible] advantage.

Application forms [illegible] ticulars of remuneration [illegible] tions of appointment [illegible] may be obtained [illegible] retary to the University [illegible] trance and School [illegible] Council, University [illegible] 66-72 Gower Street [illegible] WC1E 6EE to whom [illegible] forms should be [illegible] later than 30th January [illegible] Applicants should [illegible] ject and post and [illegible] addressed foolscap [illegible].

LONDON
THE UNIVERSITY
UNIVERSITY ENTRANCE AND SCHOOL EXAMINATIONS COUNCIL
GENERAL CERTIFICATE OF EDUCATION EXAMINATION

The Council invites applications for appointment [illegible] MODERATOR in [illegible] STUDIES in the G.C.E. [illegible] nation with effect [illegible] August 1976.

Applicants should [illegible] ates between [illegible] and 65 [illegible] experience and [illegible] G.C.E. examining [illegible] advantage.

Application forms [illegible] ticulars of remuneration [illegible] ditions of [illegible] duties may [illegible] the Secretary [illegible] Entrance and [illegible] tions Council [illegible] London, WC1E [illegible] completed forms [illegible] returned not [illegible] 30th January 1976 [illegible] should state [illegible] post and enclose [illegible] addressed foolscap [illegible].

Universities continued

LONDON
THE UNIVERSITY
UNIVERSITY ENTRANCE AND SCHOOL EXAMINATIONS COUNCIL
GENERAL CERTIFICATE OF EDUCATION EXAMINATION

The Council invites applications for appointment as a CHIEF EXAMINER in Advanced Level BIOLOGY in the G.C.E. Examination as from June 1976. The work of theory and practical examining will be shared with three other Chief Examiners.

Applicants should be Graduates between the ages of 30 and 65 with recent teaching (at least three years) and relevant examining experience in the subject area.

Application forms and particulars of remuneration, conditions of appointment and duties may be obtained from the Secretary to the University Entrance and School Examinations Council, University of London, 66-72 Gower Street, London, WC1E 6EE, to whom completed forms should be returned not later than 30th January 1976. Applicants should state the subject and post and enclose a self-addressed envelope.

Previous applicants for this post need not reapply as they will be considered with new applicants.

LONDON
WESTFIELD COLLEGE
University of London
LECTURESHIP IN HISTORY
(Tenable from 1st October, 1976)

Applications are invited for a LECTURESHIP in HISTORY commencing on 1st October, 1976. Preference will be given to candidates able to take responsibility for teaching the history of political ideas; some preference may also be given to those whose primary interest lies in the period 1300-1700. The appointment will be made to one of the first three points of the lecturer scale (£3,174–£3,378 or £3,582) on the scale £3,174 × 16 increments to £6,446, plus £399 London Allowance.

Applications (six copies) should be sent by 1st March, 1976, to Dr. J. Buckingham, Personnel Officer, Westfield College, Kidderpore Avenue, London NW3 7ST, from whom further details may be obtained.

MANCHESTER
THE UNIVERSITY
LECTURERS IN EDUCATION (EDUCATIONAL PSYCHOLOGY)

Applications are invited for two posts. Applicants should be qualified to teach Psychology to students of Education at all levels from undergraduate courses to advanced diplomas and higher degrees. Salary range per annum £2,862 to £6,136 (under review). Superannuation.

Particulars and application forms (returnable by January 23rd) from the Registrar, The University, Manchester, M13 9PL. Quote ref: 202/76/THES.

NEWCASTLE UPON TYNE
THE UNIVERSITY
DEPARTMENT OF APPLIED MATHEMATICS

Applications are invited for a LECTURESHIP in the above Department. Preference will be given to candidates with research interests in the general field of Fluid Dynamics and its applications and capable of teaching a wide variety of courses in Modern Applied Mathematics. The post is tenable from 1st October 1976.

Salary will be at an appropriate point on the scale £3,174 to £6,446 per annum according to age, qualifications and experience. Membership of the appropriate university superannuation scheme will be required.

Further particulars may be obtained from the Registrar, The University, Newcastle upon Tyne, NE1 7RU, with whom applications (three copies) together with the names and addresses of three referees, should be lodged not later than 9th February 1976. Please quote reference THES.

NATAL
THE UNIVERSITY
DEPARTMENT OF CIVIL ENGINEERING
DURBAN

Applications are invited from suitably qualified persons for appointment to the post of

SENIOR LECTURER

The applicant should have had design experience in structural engineering and should be interested in undertaking research in structural analysis.

The salary scale attached to the post is R8,820 by R360 to R9,900 by R450 to R11,250.

The commencing salary notch will be dependent on the qualifications and/or experience of the successful applicant. In addition an annual vacation savings bonus is payable subject to Treasury regulations.

Application forms and information on pension, medical aid, staff bursary, housing loan and subsidy schemes, leave conditions and travelling expenses on first appointment are obtainable from the Registrar, University of Natal, King George V Avenue, Durban, with whom applications on the prescribed form must be lodged not later than the 28th February, 1976, quoting Ref. Adv. 64/75.

NEW ZEALAND
VICTORIA UNIVERSITY OF WELLINGTON
LECTURESHIPS IN GEOGRAPHY

Applications are invited for two Lectureships in Geography: one position is in the geography of Monsoon Asia and preference will be given to applicants interested in the problems and development of the agrarian sector and/or the social and economic consequences of rapid urbanisation in Asia, and who, in addition, have undertaken fieldwork in some part of Asia. The Department expects the successful applicant to offer an undergraduate course covering all the essential features of the human and physical geography of Monsoon Asia which then concentrates upon the development problems of specific areas including both India and China. At the postgraduate level the appointee may have the opportunity to offer a course of a more specialised nature based in part upon his or her particular field of interest.

The other position is in urban studies and the appointee will be concerned in particular with the economic, the social and the planning issues arising out of the post-war urbanisation of New Zealand. Preference may be given to applicants who have an interest in the social and economic geography of Europe and/or the United States of America.

Salary range: NZ$8,121 to $10,173. An allowance is made towards travel and removal expenses.

Further particulars, conditions of appointment and application procedure are obtainable from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.

Applications close on February 29, 1976.

NEW ZEALAND
VICTORIA UNIVERSITY OF WELLINGTON
LECTURESHIP IN EDUCATION

Applications are invited for the above-mentioned post from persons qualified to teach some branch of educational psychology. Preference may be given to applicants qualified in behaviour modification or in remedial education.

Salary range: NZ$8,121 to $NZ10,173 per annum. An allowance is made towards travel and removal expenses.

Further particulars and application procedure from Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.

Applications close on 29 February, 1976.

OXFORD
WORCESTER COLLEGE

Applications are invited for SENIOR SCHOLARSHIPS of £1,084 per annum and fees and provision for accommodation at Worcester College, which is one of the men's colleges of the University of Oxford. Scholarships are open to graduates of any university (including those graduating in 1976) to enable them to read for a higher degree at Oxford in Mathematics or a Science subject (not including Geography or Social Sciences).

Candidates who are not graduates of a United Kingdom university must be reading for a degree in the United Kingdom.

Application forms, obtainable from the College Secretary, should be returned by 1st March, 1976.

OXFORD
THE UNIVERSITY
UNIVERSITY LECTURESHIP IN MATHEMATICAL STATISTICS

Applications are invited for a University Lectureship in Mathematical Statistics. This post may be held in conjunction with a Tutorial Fellowship at Jesus College (open to men and women), for which separate application need not be made.

Further particulars may be obtained from the Secretary of Faculties, University Offices, Wellington Square, Oxford, OX1 2JD, to whom applications (12 typed copies, or one from overseas applicants) must be sent by 13th February 1976.

OXFORD
THE UNIVERSITY
JUNIOR LECTURESHIP IN MATHEMATICS
(Pure or Applied)

Applications are invited for a Junior Lectureship in Mathematics. The appointment is for a period of three years from 1st October 1976 (or as soon as possible thereafter) and is not renewable.

The stipend is on the scale (under review) £2,719 by £96 to £2,815 by £211 to £3,026 by £228 to £3,254.

Further details may be obtained from the Secretary of Faculties, University Offices, Wellington Square, Oxford, OX1 2JD, to whom applications should be sent not later than 6th February 1976.

OXFORD
THE UNIVERSITY
UNIVERSITY LECTURESHIP IN EXPERIMENTAL PHYSICS

Applications are invited for a university lectureship in pure or applied experimental physics (other than nuclear physics), in the Clarendon Laboratory, on the scale (under review) £2,778 to £6,480 per annum. The post may be held in association with a fellowship at New College. Further particulars can be obtained from Professor B. B. Bleaney, Clarendon Laboratory, Parks Road, Oxford, OX1 3PU, to whom applications should be sent by 16 February, 1976.

NEW COLLEGE
Oxford
FELLOWSHIP AND TUTORSHIP IN PHYSICS

Applications are invited for an OFFICIAL FELLOWSHIP and TUTORSHIP in PHYSICS, tenable in conjunction with the University Lectureship in pure or applied experimental physics (other than nuclear physics) in the Clarendon Laboratory.

Applications for this Fellowship and the University Lectureship should be made jointly and should reach Professor B. Bleaney, C.B.E., F.R.S., Clarendon Laboratory, Parks Road, Oxford OX1 3PU, from whom particulars may be obtained, by 16 February.

OXFORD
THE UNIVERSITY
PROFESSORSHIP OF SOCIAL ANTHROPOLOGY

The electors intend to proceed to an election to the Professorship of Social Anthropology which is now vacant. The stipend of the professor will be £8,775 a year.

Applications (nine copies), naming three referees but without testimonials, should be received not later than 12 March, 1976, by the Registrar, University Offices, Wellington Square, Oxford OX1 2JD, from whom further particulars may be obtained.

THE OPEN UNIVERSITY
STAFF TUTORS IN SOCIAL SCIENCES
NOTTINGHAM AND LEEDS

There is one vacant post in each office. Staff tutors are appointed to the Faculty of Social Sciences but are organizationally responsible to the Director of the region in which they work. The main duties involve assistance to the Regional Director in the Appointment, Training and Supervision of part-time Tutors and liaison with members of the University Central Academic Staff. There is a considerable amount of evening work and travel.

Permanent appointment will be offered at a suitable point on the scale £3,970 to £6,446 plus U.S.S. benefits. Applicants should have teaching experience and be qualified in one of the following disciplines:—

For Nottingham, Sociology or Psychology.

For Leeds, Sociology, Psychology, Economics or Government, preferably with a competence in Social Sciences research methods.

Please send a postcard for an application form and further particulars to the Personnel Manager (STRON-1), The Open University, P.O. Box 75, Walton Hall, Milton Keynes MK7 6AL, or telephone Milton Keynes 63868/9. Closing date for completed applications, January 30, 1976.

SHEFFIELD
THE UNIVERSITY
ANCIENT HISTORY AND CLASSICAL ARCHAEOLOGY

Applications are invited for a Lectureship, tenable as soon as possible, from candidates in any field of Ancient Greek or Roman History and Archaeology. Preference may be given to applicants with special interests in aspects of classical archaeology.

Initial salary in the range £3,174 to £3,786 on the scale £3,174 to £6,446, with superannuation.

Further particulars from the Registrar and Secretary, The University, Sheffield S10 2TN, to whom applications (five copies) should be sent by 7th February, 1976. Quote Reference R.321/DI.

SHEFFIELD
THE UNIVERSITY
DEPARTMENT OF PSYCHOLOGY

Applications are invited for a newly established LECTURESHIP in PSYCHOLOGY tenable from a date to be arranged. Applicants should have research experience and interests in language development and/or cognitive growth. The department has recently occupied a purpose-built and well equipped new building which includes a nursery school.

Initial salary in the range £3,174 to £3,786 on the scale £3,174 to £6,446 with superannuation.

Further particulars from the Registrar and Secretary, The University, Sheffield S10 2TN to whom applications (five copies) should be sent by 27 February, 1976. Quote Ref. R.320/DI.

SALFORD
THE UNIVERSITY
DEPARTMENT OF MODERN LANGUAGES
LECTURESHIP/SENIOR LECTURESHIP IN FRENCH

Applications are invited from candidates with specializations in any field other than linguistics for the above post. The successful candidate will be required to take up duties not later than the beginning of the Autumn Term 1976.

Salary scales, £3,174 to £6,446 per annum (Lecturer); £6,234 to £7,742 per annum (Senior Lecturer), U.S.S./F.S.S.U.

Further particulars and application forms may be obtained from the Registrar, University of Salford, Salford M5 4WT, to whom completed applications should be returned, not later than February 6, 1976, quoting reference ML/46.

SOUTHAMPTON
THE UNIVERSITY
PROFESSOR OF PSYCHOLOGY

Applications are invited from persons with experimental interests for appointment to a Chair of Psychology.

Further particulars may be obtained from the Academic Registrar, The University of Southampton, SO9 5NH and applications (11 copies from applicants in the United Kingdom and one from others) must be submitted before 18 March 1976.

SUSSEX
THE UNIVERSITY
SCHOOL OF APPLIED SCIENCES
TEMPORARY LECTURESHIP IN MATERIALS SCIENCE

Available until September, 1979. Applicants should be expert in some aspect of the mechanical behaviour of materials; preferably this expertise should extend to non-metallic materials. Starting date as soon as possible.

Salary on scale £3,174 to £6,446 per annum with U.S.S. benefits.

Application forms and further details from Secretary of Science, Science Office (E), University of Sussex, Falmer, Brighton BN1 9RH, to whom completed forms should be returned by February [illegible] 1976.

ULSTER
THE NEW UNIVERSITY
INSTITUTE OF CONTINUING EDUCATION
MAGEE UNIVERSITY COLLEGE LONDONDERRY
COMMUNITY STUDIES DIVISION
LECTURESHIP

Applications are invited for the post of Lecturer primarily to assist in teaching and tutorial work on a two-year non-graduate course in applied social, youth and community studies leading to the award of the Certificate of Qualification in Social Work.

Applicants should normally hold a relevant professional qualification and have substantial practical experience. A sociology qualification and experience in social group work would be advantageous.

Salary scale (with F.S.S.U./U.S.S.): £3,174 by 204(10) by 213(1) to £6,446.

Appointment will normally be within the first nine points (up to £4,806).

Further particulars may be obtained from the Registrar, The New University of Ulster, Coleraine, Northern Ireland (quoting Ref.: 76/3) to whom applications together with the names and addresses of three referees should be sent not later than February 13, 1976.

WARWICK
THE UNIVERSITY
LECTURESHIP IN PSYCHOLOGY

Applications are invited for a Lectureship in Psychology tenable from 1st October, 1976. The successful candidate will be associated with the development and teaching of courses leading to a Single Honours Psychology, and integrated joint degrees in Education and Psychology, Psychology and Engineering, Psychology and Philosophy. Areas of special interest are developmental psychology, psycholinguistics, engineering psychology, mathematical and statistical psychology, artificial intelligence and cognition.

The initial salary will be within the first four points of the Lecturer scale £3,174 to £3,786) to £6,446 per annum.

Further particulars and application forms from the Academic Registrar, University of Warwick, Coventry, CV4 7AL, quoting Ref. No: 21/F/76. Closing date for receipt of applications is 16th February, 1976.

WARWICK
THE UNIVERSITY
LECTURESHIP IN THEATRE STUDIES

The post is tenable from 1st October, 1976. Candidates should have a particular interest in the history of theatre and experience in practical studio work; they should also be able to relate these areas to a knowledge of modern theatre literature and practice. Salary on the scale £2,778 by £204 to £8,838, £6,080 per annum (under review), plus threshold payment and USS. The initial salary offered will be no higher than the fourth point on this scale (£3,390).

Application forms and further particulars from the Academic Registrar, University of Warwick, Coventry CV4 7AL quoting ref. 20/F/76. Closing date for receipt of applications is 6th February, 1976.

THE WEST INDIES
THE UNIVERSITY
BARBADOS

Applications are invited for the post of LECTURER/ASSISTANT LECTURER in CHEMISTRY. Preference will be given to applicants with experience in Organic Chemistry and who have some training in Biochemistry. Duties to be assumed on August 1st, 1976 or not later than October 1st, 1976. Salary scales (under review): Lecturer: BDS$13,200 to BDS$20,904 per annum. Assistant Lecturer: BDS$10,716 to BDS$11,748 per annum (£1 sterling = BDS$4.07).

F.S.S.U. Unfurnished accommodation will be let by the University at a rental of 10 per cent of salary. A housing allowance of 20 per cent of salary is payable to staff who make their own housing arrangements. Up to five full passages on appointment and on normal termination. Study and Travel Grant.

Detailed applications (six copies) including a curriculum vitae, naming three referees, should be sent as soon as possible to the Secretary, University of the West Indies, P.O. Box 64, Bridgetown, Barbados. The University will send further particulars for this post to all applicants. These particulars may also be obtained from the Inter-University Council for Higher Education Overseas, 90-91 Tottenham Court Road, London W1P 0DT.

WEST INDIES
THE UNIVERSITY
Trinidad

Applications are invited for the Temporary post of LECTURER in BOTANY in the Department of Biological Sciences. Candidates will be required to have a major interest in Plant Physiology. The appointee will be expected to participate in the teaching programme in Botany at undergraduate and post-graduate levels in the Faculties of Agriculture and Natural Sciences, and to supervise postgraduate research. The appointee will be expected to assume duties as soon as possible or not later than September 1, 1976. The post will be available until November, 1978, in the first instance.

Salary Scale (under review) TT$13,200 to TT$20,904 per annum (£1 sterling equals TT$4.80). F.S.S.U. Unfurnished accommodation will be let by the University at a rental of 10 per cent of salary. If, however, the staff member provides his own accommodation, he will be paid a housing allowance of 20 per cent of his pensionable salary. Up to five full passages (at approved rates) on appointment and on normal termination. Study and Travel Grant.

Detailed applications (six copies) including a curriculum vitae, naming three referees should be sent as soon as possible to the Secretary, University of the West Indies, St. Augustine, Trinidad. Further particulars for this post will be sent to all applicants.

ZARIA
AHMADU BELLO UNIVERSITY

Applications are invited for the following posts in the Faculty of Science.

(1) DEPARTMENT OF BIOLOGICAL SCIENCES
PROFESSOR of BIOLOGY:

Candidates should hold a higher degree, a significant publications record and a considerable period of University teaching experience.

(2) DEPARTMENT OF PHYSICS

(i) SENIOR LECTURER/LECTURER in APPLIED GEOPHYSICS

(ii) CHIEF SUPERINTENDING/SENIOR TECHNICIAN in GEOPHYSICS

For (i) the appointee will be a member of the staff of the Physics Department with special commitments in the teaching of the established 18-month course leading to M.Sc. in Applied Geophysics by course-work and project. He should hold a degree, preferably in Physics or Mathematics, plus a higher qualification in some branch of applied Geophysics. Special experience in Seismology would be an advantage. The department has a stock of equipment (including three vehicles) representative of all the main areas of exploration Geophysics. It has an active programme of research, involving five members of the teaching staff at present on practical and academic problems relating to local circumstances. For (ii) the appointee working in close collaboration with academic staff, will be concerned with the technical and managerial aspects of the departmental research, particularly in the field of Applied Geophysics. He should hold a degree in Physics or Geophysics or a comparable qualification and should have had considerable experience in similar work.

Salary Scale: Professor, N11,268 to N12,480 per annum (£8,388 to £9,132 per annum sterling); Senior Lecturer, N7,764 to N8,724 per annum (£5,708 to £6,414 per annum sterling); Lecturer, N5,460 to N6,984 per annum (£4,014 to £4,729 per annum sterling); Chief Technician, N5,460 to N6,433 per annum (£4,014 to £4,729 per annum sterling); Superintending Technician/Senior Technician N4,368 to N5,340 per annum (£3,211 to £3,926 per annum sterling) (£1 sterling equals N1.36 approximately). The British Government may supplement salaries at Professor, Senior Lecturer and Lecturer level in appropriate cases. This supplementation scheme is unlikely to be applied to Technicians. Family passages; various allowances; superannuation scheme; biennial overseas leave.

Detailed applications (two copies), including a curriculum vitae and naming three referees should be sent by airmail, as soon as possible, to the Registrar, Ahmadu Bello University, Zaria, North Central State, Nigeria. Applicants resident in United Kingdom should also send one copy to Inter-University Council, 90-91 Tottenham Court Road, London W1P 0DT. Further particulars may be obtained from either address.

Applications are invited for the post of

Rector

The present Rector retires this summer and the Governors are looking for an able successor. Salary about £12,300. The Polytechnic has five Faculties—Art and Design, Education, Engineering, Humanities and Science

Further particulars and an application form may be obtained from the Personnel Officer, Sunderland Polytechnic, Chester Road, Sunderland, SR1 3SD and should be returned as soon as possible.

SUNDERLAND POLYTECHNIC

Sunderland Polytechnic

Courses

HEBRIDEAN summer holiday courses in Art & Crafts. Brochure: Group Seven, 22 Mornish, Mull, Argyll.

Typing and Duplicating

TYPEWRITING Service: 35pp. per 500 words. 01-994 3051; 9-18, 2-4 w/days. 2nd time + clients 5 per cent off.

Polytechnics

LEICESTERSHIRE
LEICESTER POLYTECHNIC
ADMINISTRATIVE ASSISTANT
(Student Admissions)
(£2,529 to £2,865 per annum)

Administrative Assistant required in the Academic Registry. Post is primarily concerned with supervision of the Polytechnic's central student admission system. Duties are related to the administrative aspects and procedures of admissions, not with the selection of students. The work also includes responsibility for Committee servicing of some Sub-committees of the Academic Board.

Grading of the post currently under review. The Polytechnic is seeking to appoint a person who already has administrative experience in higher education. Applicants should hold a degree or equivalent professional qualification of a British institution.

Application form and further details obtainable from: Staffing Officer, Leicester Polytechnic, P.O. Box 143, Leicester, LE1 9BH.

CITY OF BIRMINGHAM
THE POLYTECHNIC
DEPARTMENT OF ENGLISH AND FOREIGN LANGUAGES
LECTURER II IN ENGLISH

Required as soon as possible to teach on CNAA Honours Degree Course in English and other high level courses. Specialist in 18th Century Literature required. In addition the ability to teach Stylistics and Semiology would be a special recommendation.

Salary scale: Lecturer II, £3,279 to £5,493.

Further details and application forms (to be returned by 2nd February, 1976) from: The Personnel Officer, City of Birmingham Polytechnic (THES), Room B310, Perry Barr, Birmingham B42 2SU.

ABERDEEN
ROBERT GORDON'S INSTITUTE OF TECHNOLOGY

EDUCATIONAL TECHNOLOGY UNIT

LECTURER

required for teaching at undergraduate and postgraduate level and research and development.

Salary scale £3,216-£6,495 per annum.

Assistance with removal expenses.

Details from Chief Administrative Officer, Robert Gordon's Institute of Technology, Schoolhill, Aberdeen, AB9 1FR.

Polytechnics continued

Applications are invited for the following post:—

Anglian Regional Management Centre
Department of Manpower Studies

Principal Lecturer in Personnel Management, Industrial Relations and Training, to undertake the roll of Course Group Supervisor for courses in Personnel Management, Industrial Relations and Training, and to be Course Supervisor for the Diploma in Management Studies (Human Resources). Possession of industrial, teaching and/or research experience is essential coupled with a degree and/or higher degree in the social sciences, and membership of an appropriate professional organisation. *(Ref. S/AO 268A)*

Location—Danbury Park, Nr. Chelmsford, Essex.

Department of Services to Industry

Lecturer II in Financial Management/Management Accounting, to teach Financial Management/Management Accounting subjects within a variety of programmes, including D.M.S. and Post-graduate International Marketing Diploma, and to assist in case study development and course management. Appropriate academic qualifications and management experience essential. *(Ref. S/AO 269B)*

Location—Asia House, Chadwell Heath, Essex.

Faculty of Human Sciences

Department of Social Work, Health and Nursing

Senior Lecturer in Health Visiting to take charge of the Health Visitor Course. Candidates should be on the CETHV roll of Health Visitor Tutors. Teaching experience in a Polytechnic or similar institution is desirable. *(Ref. S/AO 268C)*

Lecturer II in Health Visiting. Applicants should be on the CETHV roll of Health Visitor Tutors. Additional qualifications or experience an advantage. *(Ref. S/AO 268D)*

Lecturer II in Community Studies required to join a team of Social Work lecturers. The post is suitable for applicants who have experience and wish to develop teaching of community work on two year C.Q.S.W. Course and on Social Work Option of C.N.A.A. Sociology Degree Course. Applicants should be *appropriate graduates with community work experience, and/or* professionally qualified social workers with experience, interested in developing the teaching of community work. *(Ref S/AO.268E)*

Interim Faculty of Art & Design

Associate Lecturer in the History of Art. He/she will be required to lecture on the history of the modern movements of painting and sculpture to the Polytechnic Diploma in Fine Art Course. The course has been submitted as Fine Art B.A. honours degree course to the C.N.A.A. for approval. *(Ref S/AO268F*

Salary Scales:	Principal Lecturer	£6,940-£7,578
	Senior Lecturer	£5,031-£5,417
	Lecturer III	£3,279-£5,493
	Associate Lecturer (0.2)	£655-£1,098

(Plus appropriate London Allowance with the exception of the Principal Lecturer post.)

Further details and application form from:
Academic Staffing Office (2), North East London Polytechnic, Forest Road, London E17 4JB. Tel: 01-527 2272 Ext. 197.
Closing date: 3 February, 1976.
Please quote above reference no.

NELP North East London Polytechnic

PLYMOUTH POLYTECHNIC

Learning Resources Centre

INFORMATION OFFICER

Salary £3,279-£5,493

(Lecturer Grade II Scale)

is required to share the task of a well-developed library instruction programme using a variety of teaching methods and media and to undertake subject specialist duties in the appropriate science/engineering subjects. A genuine interest in teaching is required, together with good academic qualifications and appropriate professional qualifications/experience.

The LR Centre is housed in a new building on the campus of Plymouth Polytechnic, which is ideally sited in the centre of a modern city set in an area of outstanding natural beauty.

Further particulars and application form from the Personnel Officer to be returned by the 30th January, 1976. The appointment should commence May, 1976 or by September, 1976, at the latest.

Leeds POLYTECHNIC

Department of Life Sciences
LECTURER II/ SENIOR LECTURER IN NUTRITION AND DIETETICS

Applicants must be well qualified academically and be State Registered Dietitians.

Salary Scale:
Lecturer II: £3279-£5483
Senior Lecturer: £5031-£5856 (bar)-£6417

Commencing salary according to qualifications and experience.

Details from:
The Academic Officer, (ND13) Leeds Polytechnic, Calverley Street, Leeds LS1 3HE. 0532 41101
Closing Date: 30th January, 1976.

Head of Library Services

(Grade III) post

To take responsibility for the Polytechnic's existing library services and to help plan their future development. Candidates should be professionally qualified librarians with experience and have a flexible, forward looking approach, responsibility and leadership qualities. Applications by letter, giving full details of present appointment, experience and qualifications will be considered, with appointment at a salary within the range of Principal Lecturer, Grade IV (£6,918-£8,013) plus London Allowance.

Further particulars and application forms from D. R. Hunting, M.A., Academic Registrar, Dept. A.T.H.E.S., Middlesex Polytechnic, Queway, Enfield, Middx. EN3 4SA. Applications close on 2nd February, 1976.

Middlesex Polytechnic

QUEEN MARGARET COLLEGE

EDINBURGH

Academic Staff Appointments

SCIENCE AND DIETETICS: Head of Department

As a result of retiral, this post becomes vacant in September, 1976. Candidates should be well qualified in a branch of Science relevant to the work of the College and have good experience of teaching in Higher Education. The ability to administer the work of a *large department and to develop research* activities is looked for.

DRAMA: COURSE DIRECTOR (Senior Lecturer)

Required for 1 March, 1976, or as soon thereafter as possible to lead a team of staff in the provision of a three-year full-time Diploma course in Drama and the Spoken Word. Candidates should be qualified in the Dramatic Arts and have experience of teaching in Higher or Further Education.

CLINICAL TEACHING: COURSE TUTOR (Senior Lecturer)

Required for 26 April, 1976, or as soon thereafter as possible to be responsible for a new one-year full-time Diploma course in Clinical Nursing Education. Candidates must be Registered Nurse Teachers.

SOCIAL WORK: Lecturer

Required for September, 1976, to contribute to a new two-year full-time COSW course. Candidates should be qualified and experienced in Social Work and competent to contribute to the teaching in the Principles and Methods of Social Work and in Psychology.

Queen Margaret College, founded in 1875, is a Scottish Central Institution offering courses at Degree and Diploma level. The curriculum of the College includes full-time courses in Dietetics, Drama, Health Visiting, Home Economics, Institutional Management, Nursing, Social Work, and Speech Therapy.

Salary Scales:
Head of Department : £8,277 p.a. (currently under review)
Senior Lecturer : £6,000-£6,735 (bar)—£7,716 p.a.
Lecturer : £3,216-£6,012 (bar)—£6,495 p.a.

Application forms and further particulars from:
The Secretary, Queen Margaret College, 36 Clerwood Terrace, Edinburgh EH12 8TS
Telephone: 031-334 8111

Ulster College
The Northern Ireland Polytechnic

FACULTY OF SOCIAL AND HEALTH SCIENCES

Principal Lecturer—Sociology

To co-ordinate and develop the teaching of Sociology in a wide range of degree and diploma courses.

Applicants should have graduate and post graduate qualifications in Sociology and be experienced teachers of the subject.

FACULTY OF TECHNOLOGY
School of Building

Principal Lecturer—Building

Applicants should be graduates and/or professionally qualified and should have had teaching experience at degree level and industrial or research experience in the field of building technology and management.

School of Civil Engineering

Lecturer II or Senior Lecturer —Soil Mechanics

To lecture in degree and technician engineer courses.

Applicants must be graduates and interests in *research and laboratory* developments are essential.

SALARY SCALES:
Principal Lecturer : £5,940-£6,642/£7,578
Senior Lecturer : £5,031-£5,856/£6,417
Lecturer II : £3,279-£5,493

Further particulars and application forms which must be returned by January 30 may be obtained by telephoning Whiteabbey 65131, Ext. 249, or by writing to:

The Establishment Officer, Ulster College, The Northern Ireland Polytechnic, Jordanstown, Newtownabbey, co Antrim, BT37 0QB.

OXFORD POLYTECHNIC
Department of Catering Management

Applications are invited for the following posts:

Principal Lecturer, Senior Lecturer or Lecturer II in Catering Operations

(£3,279-£7,578)

to teach catering (including food production and service) on Degree, HND and other advanced courses. The successful applicant should be a graduate or have an equivalent professional qualification with experience in the hotel and catering industry.

Principal Lecturer, Senior Lecturer or Lecturer II in Accommodation Studies

(£3,279-£7,578)

to teach managerial aspects of accommodation (hotel and other institutions) on Degree, HND and other advanced courses. The successful applicant should be a graduate or have an equivalent *professional qualification with* experience in the hotel and catering industry.

Further details and application forms may be obtained from the Head of Department of Catering Management, Oxford Polytechnic, Oxford, OX3 0BP.

Colleges of Further Education

LONDON BOROUGH OF CROYDON
EDUCATION COMMITTEE

Applications are invited for the post of

PRINCIPAL

tenable from 1st September, 1976, at

CROYDON COLLEGE OF DESIGN AND TECHNOLOGY

Salary: Group 8 under Burnham F.E. Report Rate £11,476 per annum plus London Weighting.

Further details and application forms obtainable from the Director of Education (Reference TAS), Education Department, Taberner House, Park Lane, Croydon CR9 1TP. Forms to be returned by 30th January, 1976.

Bedfordshire

DUNSTABLE COLLEGE

PRINCIPAL

Applications are invited from suitably qualified candidates with substantial experience in further education and who are currently holding a post carrying senior management responsibility in the education service.

The College, which was opened in 1961, is pleasantly situated in Kingsway, Dunstable. Its buildings, which include the Area Careers Office, are in close proximity to the Branch Library and a Sports Centre. The College is organised in four departments: Business and General Studies (Grade IV), Engineering and Science (Grade IV), Nursing and Homecrafts (Grade III) and Printing and Graphic Arts (Grade III). Principal. The College is Group IV and the Principal's Salary will be on the range £8,736-£9,318.

The successful applicant will be required to take up duty from 1st September, 1976, or from a date to be agreed.

Application forms (with further particulars) may be obtained from D. F. J. Browning, M.A., Chief Education Officer, County Hall, Bedford MK42 9AP, and returned by 30th January, 1976.

Colleges of Education

LANCASHIRE
EDUCATION COMMITTEE
NELSON AND COLNE COLLEGE

[illegible] Tertiary College, Nelson

ASSISTANT LECTURER IN [illegible]

[illegible] Faculty within the [illegible] Group of Colleges required for [illegible] 1976.

Applications are [illegible] auitably qualified graduates [illegible] post which will [illegible] ability for the [illegible] personal welfare [illegible] attitude and a [illegible] matters of concern [illegible] tion development [illegible] the College.

Further details and [illegible] tion forms from [illegible] Nelson and [illegible] Scotland Road, [illegible] BB9 7YT.

Closing date [illegible] ary 6, 1976.

LONDON

UNIVERSITY OF [illegible]
GOLDSMITHS' COLLEGE
New Cross, London SE14

Applications are [illegible] the post of LECTURER [illegible] PHYSICAL EDUCATION [illegible] will become vacant [illegible] tember, 1976. [illegible] should be well [illegible] have a good [illegible] ground and [illegible] in the subject.

The ability to [illegible] courses in Historical [illegible] inquisitive aspects [illegible] Education, to [illegible] degree level, is [illegible] ability to contribute [illegible] Scientific Course [illegible] ject would be an [illegible] vantage.

Salary on the [illegible] for Lecturer [illegible] Education as [illegible] Lecturer [illegible] London Allowance [illegible] payable.

Write for further [illegible] enclosing a stamped [illegible] medium size envelope [illegible] Personnel Officer, [illegible] applications should [illegible] 30th January, 1976.

BIRMINGHAM

WESTHILL COLLEGE OF EDUCATION
Weoley Park Road, Selly Oak, Birmingham B29 6LL

TEMPORARY LECTURER IN ENGLISH

Applications are invited from men and women for the post of Temporary Lecturer in English for the academic year 1976-77, with effect from 1st September, 1976.

The successful candidate will have a first degree with experience in descriptive linguistics appropriate to first degree level and will be responsible for a substantial part of the English Language component of the University of Birmingham B.Ed. degree course.

Salary: Lecturer II Scale (£3,279 to £5,493 with prospect of transfer to the Senior Lecturers' Scale (Maximum £6,417) on reaching £6,052 per annum.

Application forms and further particulars of the post and the College are obtainable from and returnable to the Senior Administrative Officer at the College, as soon as possible.

DERBY

[illegible] LONSDALE COLLEGE OF PHYSICAL EDUCATION

Applications are invited for a post of LECTURER II in [illegible] SCIENCE, for [illegible] SOCIAL SCIENCES, for [illegible] Tutor of the [illegible] teacher's certificate, the B.Ed. degree and Diploma of [illegible] Education or the [illegible] of Education.

Applicants should have experience and interest in [illegible] age range. An interest in Psychology and [illegible] an advanced qualification in Education would be an [illegible] tage.

Further particulars and application forms may be obtained from the Principal, [illegible] Lonsdale College, [illegible] Derby. Completed forms should be returned as soon as possible.

Colleges of Education

Head

of Sidney Stringer School and Community College

Group 12 plus £900 special allowance plus SPS allowance (£9,567 to £10,152)

Application forms and further particulars for this post, which it is hoped to fill by September or earlier, can be obtained from Robert Aitken, Director of Education, Council Offices, Earl Street, Coventry CV1 5RS. Closing date, 6th February, 1976.

coventry

CUMBRIA
EDUCATION COMMITTEE
CARLISLE COMMERCIAL COLLEGE OF EDUCATION

Principal, R. W. Percival Hegarty, C.B.E.

1976, a LECTURER IN DRAMA to take charge of the teaching of *drama which is an essential* part of the creation of the new of the newly designed University, Language and Literature course in Applied Education, for training teachers to work with children in the early and middle years. It is hoped to appoint someone with school experience and with post-graduate qualifications and interest, both developed and in drama, work with children in schools and in preparing for a career as a Centre for dramatic and cultural activities for students, staff and the surrounding area.

Salary will be in accordance with Pelham Lecturer II Scale, £3,279 to £6,495 with prospect of transfer to the Senior Lecturers' Scale (Maximum £6,417) on reaching £6,052 per annum.

Application forms and further particulars of the post and the College are obtainable from and returnable to the Senior Administrative Officer at the College, as soon as possible.

Announcements

MARY HENNIKER HEATON FUND

Applications for grants under the above fund should reach the Secretary, Royal College of Speech and Drama, Gower Street, London, WC1E 6AE, by the end of February 1976.

Fellowships and Studentships

SSRC Fellowships 1976

SSRC offers about thirty fellowships for the academic year 1976/77 to enable people to pursue research, or train for research in the social sciences for up to three years. Fellows are paid on the university lecturer scale.

Applications are invited from graduates from any discipline without previous research training in social sciences but with five to seven years' experience in relevant employment who wish to take a PhD; (exceptionally fellowships may be awarded to part-time candidates who need one year full time to complete a doctorate) or recent PhDs who either wish to convert from another discipline, acquire a second expertise in social science *or extend their research in the same or a similar field*

To be eligible for a fellowship applicants must: intend to pursue research in a field within the remit of SSRC; be resident in the UK for at least three years; be nominated by a department of a UK institution approved by SSRC. Full-time permanent members of UK universities are not eligible.

Further details and application forms (please quote ref F) from: Kelly Reid (Extn 3) or Mary Nee (Extn 9).

CLOSING DATE FOR APPLICATIONS: 1 March, 1976.

Social Science Research Council **SSRC**

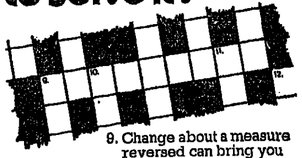
Vacancies

ECONOMICS

Lecturer required for period 8th to 12th March 1976 in daytime to teach economics to students preparing for a first professional examination.

CHART TUTORS
7-11 Modern Court
London EC4A 4AB
Tel: 01-236 3741

Does a puzzle challenge you to solve it?



9. Change about a measure reversed can bring you endless satisfaction (9)

HONOURS GRADUATES
—a career that appeals to reason

If you've always enjoyed flexing your mental muscles, become an Inspector of Taxes.

Your job? To determine the tax liability of individuals and of companies large and small. Your starting salary of £2,400 can handle all cases except the most difficult ones. These fall to you because of the training you'll get and they and law you will receive with us; because of your personality which enables you to negotiate with a taxpayer's professional advisers on equal terms; and because—well, because you have the flair for analysing and reconciliation and making a fair and reasonable judgement.

Do you can control you could take charge of the tax affairs of an entire district enjoying wide powers of discretion. You may also spend periods on more specialised assignments and acquire an enviable professional expertise—in itself a valuable career asset.

Qualifications: Under 32. A Degree with honours—at least second class honours ability is looked for. Final year students may apply.

If you start at 21, your salary should be over £4,200 at 23, over £5,400 at 27. By your late 30's you should be earning over £9,000. By 40 you could be in a post within the Inspectorate or in general management in the Civil Service taking you to £11,000. There are vacancies all over the country. Salaries up to £465 higher in London.

To find out more, and for an invitation to visit a Tax Inspector, write to: Civil Service Commission, Alencon Link, Basingstoke, Hants. RG21 1JB. Please quote: A/539/P/ 6.

City of Birmingham EDUCATION DEPARTMENT

Staff Inspector
Vocational Further Education

Salary Scale: Soʻlbury Points 26-30 £6,390-£7,110
(to be revised following *national arbitration*)

Further particulars and application forms available from the Chief Education Officer, Administration Division, Margaret Street, Birmingham B3 3BU.

Closing date for applications: 30th January 1976.

TECHNICIAN EDUCATION COUNCIL

Appointment of

ADVISORY OFFICERS

Applications are invited for a small number of additional posts of Advisory Officer, which are being established because of the demands of the Council's developing programme. The responsibilities will include curriculum development, advisory and liaison duties with colleges and working with the Council's committees in fields broadly related to Engineering, Construction and Science.

Applicants should be appropriately qualified and have suitable experience in teaching and/or industrial training in one of the above fields. Salaries for the posts will range from £5,500 to £7,000 p.a. and the starting salary will depend on qualifications and experience. Secondment from an existing post is not excluded and enquiries are invited from candidates interested in an appointment on this basis.

Further particulars of the appointments can be obtained from the Chief Officer (Ref. AO), Technician Education Council, 76 Portland Place, London, W1N 4AA. Closing date for applications is 30th January, 1976.

BIRMINGHAM
THE UNIVERSITY
COMPUTER CENTRE

The Centre Director [illegible] services of a computer [illegible] comprehensive computing service within the University [illegible] tic facilities for other Universities [illegible] of the Midlands Region. [illegible] order to meet increasing [illegible] needs, a staff reorganisation [illegible] has been necessary and four experienced [illegible] posts of staff are required to fill the following positions:

SYSTEMS MANAGER
Grade III (Senior)

The Systems Manager on the Technical Support Group will lead the Systems Group whose responsibilities include the development and maintenance of operating and communication software. The successful applicant will have proven experience in Computing Science and management experience. Candidates should possess a professional qualification to at least the level of a good honours degree.

Salary range £6,234 to £7,749.

SENIOR COMPUTER OFFICER
(Information Liaison)

The Senior Computer Officer will be a senior member of the User Services Group with special responsibility for technical user support. Applicants should have substantial experience in applications programming, detailed knowledge of documentation techniques and the ability to communicate both verbally and in written form.

Salary range £5,010 to £6,348.

ASSISTANT OFFICER
(TECHNICAL WRITING)

COMPUTER OFFICER
(LIAISON)

Both these posts will be within the User Services Group. In-depth experience of using one of four pre-selected high level languages (preferably Fortran) in a scientific research environment is essential. Specialist knowledge of one or more subject areas is desirable. The Technical Writer must possess the ability to write well technical documents in a clear and concise form.

Salary range £3,976 to £4,692 (bar) to £5,118.

All posts carry University Superannuation Scheme (USS) benefit.

Further particulars may be obtained from, and applications (3 copies) including full curriculum vitae and naming three referees, should be sent by 14th February 1976 to the Assistant Registrar (Ref. C), University of Birmingham, P.O. Box 363, Birmingham B15 2TT. Quote ref: HC1.

BIRMINGHAM
THE UNIVERSITY
GUILD OF STUDENTS

APPOINTMENT OF WELFARE OFFICER

The Council of the Guild of Students invites applications for the newly created post of Welfare Officer. The person appointed will probably be within the ages of 24 to 30 and will have had experience in the fields of Education, Social Services or Counselling, and have some administrative skills.

The post will be in the University Assistant Grade (Union), with the current salary range £4,758 to £6,258. The appointment will be in the first instance for a period of five years, and the successful applicant will be expected to undertake duties on 1st July, 1976, or be sent as suitable thereafter.

The closing date for application is Monday, 26th January, 1976. Further particulars of the appointment and of the conditions of service will be sent on application to the undersigned.

LONDON
INNER LONDON EDUCATION AUTHORITY

A WARDEN
is required for the
NORTH LONDON SCIENCE CENTRE

This centre, opened in 1968, was one of the first science teachers' centres to be established anywhere, and is now has an international reputation. It is one of the two main bases in the ILEA for the in-service training of science teachers, for curriculum development work in science, and for the giving of advice on all aspects of science education. The Centre is well-equipped, and is in modern premises in Highbury and Islington station on the Victoria line, and the Warden has the help of two deputy wardens and an excellent support staff.

Applications are invited from men or women with an established degree in science or education, whose own academic career in science, applied science or engineering will enable them to take on the appointment with confidence. To whom the present Warden is due to retire in September, 1976.

Salary scale: Burnham (Group 4) Point 1 (£6,234) to Point 3 (£6,744), plus £1,251 London Allowance.

Application forms available from the Chief Education Officer, Inner London Education Authority, County Hall, London SE1 7PB, to whom they should be returned by 30th January, 1976.

Overseers

AFGHANISTAN
INSTITUTE OF AFGHAN STUDIES
DIRECTOR

Applications are invited for this post from October 1976. The Director runs the Society for Afghan Studies in Kabul. He will be expected to pursue his own research and to assist in administration for the Society's programme, for which a separate Director has been appointed. An initial contract is envisaged for six years, subject to renewal, by agreement between the Society and the Afghan Government. The salary scale is £3,000 per annum plus £2,000 per annum (3 cases) Pakistan full concurrent value and running three referees, should be sent by 14th February 1976 to the Assistant Registrar (C), University of Birmingham, P.O. Box 363, Birmingham B15 2TT. Quote ref: HC2.

MIDDLESEX
NORTH LONDON COLLEGIATE SCHOOL
Canons, Edgware, Middlesex

(Direct Grant Girls' School: 650 pupils: Independent)

Required from September, 1976, ASSISTANT TEACHER OF MATHEMATICS throughout the school. Applicants should have good academic qualifications, including G.C.E. A/S and A2 levels. Advanced level syllabuses are followed in the Department of the School.

Application by letter in the first instance, giving names of two referees. Salary scale to be negotiated on experience and qualifications.

Courses

University of London Extra-Mural Studies

Applications are invited for the following two-year part-time courses beginning in October 1976:—

Certificate in Student Counselling

This course is offered in conjunction with the University of London Health Service and is intended for people already engaged in counselling higher education students and wishing to extend their knowledge and skill in this field.

Diploma in Adult Education

This course is intended for serving teachers, administrators and organizers with experience of adult education, making a career in this field.

Both courses require attendance on one day a week for 30 weeks in each of two academic years, plus short periods of residential study.

For particulars and application forms apply in the case of the Certificate in Student Counselling to Miss E. Noonan, BA (closing date March 6 1976) and the Diploma in Adult Education to Miss E. M. Monkhouse, M.A., D.Ed. (closing date April 1, 1976) both at the Department of Extra-Mural Studies, 7 Ridgmount Street, London, WC1.